ENGINEERS INSPECTION REPORT
ARKANSAS NATURAL RESOURCES COMMISSION - DAM SAFETY BRANCH
101 E. CAPITOL AVENUE, #350, LITTLE ROCK, AR 72201 (501) 682-3986

DAM NAME ALBION RESERVIOR DAM DATE OF INSPECTION 01/09. DAM ID AR01614 DATE OF LAST INSPECTION 10/24				_
OWNER NAME Merit Energy Company, LLC OWNER PHONE 501.368.4537 ADDRESS 1686 LETONA ROAD, SEARCY, AR Z CONTACT NAME Charlie McFarland CONTACT PHONE 501.322.2886 CLASS H CAPACITY 540 AF SURFACE AREA 19.1 AC HEIGHT 49 FT CREST LENGTH 2175 FT C	ZIP_72143 CREST WIDT	ГН	F	- - - -
CURRENT RESTRICTION (NO) (YES) LEVEL - EAP ON FILE (NO) (YES) INSPECTION PARTY REPRESENTING JOSHUA GRAHAM, ANRC				_
DIRECTIONS: MARK AN X FOR CONDITIONS FOUND, GIVE LOCATION AND EXTENT WITH NUMBER REFERENCE FIELD CONDITIONS OBSERVED WATER LEVEL - BELOW DAM CREST12	RENCE			
PROBLEMS NOTED: (1) NONE (1) RIPRAP - MISSING, SPARSE, DISPLACED, WEATHERED (2) WAVE EROSION-WITH SCARPS (3) CRACKS WITH DISPLACEMENT (4) SINKHOLE (5) APPEARS TOO STEEP (6) DEPRESSIONS OR BULGES (7) SLIDES (8) CONCRETE FACING-HOLES, CRACKS, DISPLACED, UNDERMINED (9) OTHER SOME REES NEED TO BE REMOVED FROM SLOPE COMMENTS; OWNER IN PROCESS OF REMOVING YOUNG TREES FROM UPSTREAM SLOPE OF DAM.		UPSTREAM SLOPE GOOD	ACCEPTABLE O	Poor
PROBLEMS NOTED: (10) NONE (11) RUTS OR PUDDLES (12) EROSION (13) CRACKS - WITH DISPLACEMENT (14) SINKH (15) NOT WIDE ENOUGH (16) LOW AREA (17) MISALIGNMENT (18) INADEQUATE SURFACE DRAINAGE (19) OTHER COMMENTS: THERE WERE SOME DEEP RUTS FROM VEHICLE TRAFFIC ON TOP OF THE CREST.	IOLES	GOOD	ACCEPTABLE	Poor
		щ С	O	O
PROBLEMS NOTED: (20) NONE (21) LIVESTOCK DAMAGE (22) EROSION OR GULLIES (23) CRACKS - WITH DISPLACEMENT (24) SINKHOLE (25) APPEARS TOO STEEP (26) DEPRESSION OR BULGES (27) SLIDE (28) SOFT AREAS (29) OTHER EXCESS VEGETATION BUT NEW OWNER SAID HE WILL BEGIN MWOING SCHEDULE ONCE GROUND DRIES. COMMENTS: SOME ANIMAL BURROWS WERE FOUND.		GOOD GOOD	ACCEPTABLE	POOR
		\Box	(\bigcirc
PROBLEMS NOTED: (30) NONE (31) SATURATED EMBANKMENT AREA (32) SEEPAGE EXITS ON EMBANKMENT (33) SEEPAGE EXITS AT POINT SOURCE (34) SEEPAGE AREA AT TOE (35) FLOW ADJACENT TO OUTLET (36) SEEPAGE INCREASE DRAIN OUTFALLS SEEN (70) OTHER (37) FLOW INCREASED/MUDDY (38) DRAIN DRY/OBSTRUCTED (39) OTHER (29) OTHER (20) SEEPAGE WAS FOUND.	ED/MUDDY	SEEPAGE GOOD	ACCEPTABLE	POOR
PROBLEMS NOTED: (40) NONE (41) NO OUTLET FOUND (42) POOR OPERATING ACCESS (43) INOPERABLE (44) UPSTREAM OR DOWNSTREAM STRUCTURE DETERIORATED (45) OUTLET OPERATED DURING INSPECTION NO YES INTERIOR INSPECTED (120) NO (121) YES (46) CONDUIT DETERIORATED OR COLLAPSED (47) JOINTS DISPLACED (48) VALVE LEAKAGE DRAIN OUTFALLS SEEN NO YES (49) OTHER COMMENTS: DID NOT SEE SEPERATE OUTLET WORKS FROM SPILLWAY.		GOOD	ACCEPTABLE	Poor
		<u>C</u>		\circ
PROBLEMS NOTED: (50) NONE (51) NO EMERGENCY SPILLWAY FOUND (52) EROSION WITH BACKCUTTING (53) CRACK - WITH DISPLACEMENT (54) APPEARS TO BE STRUCTURALLY INADEQUATE (55) APPEARS TOO SMALL (56) INADEQUATE FREEBOARD (57) FLOW OBSTRUCTED (58) CONCRETE DETERIORATED/UNDERMINED (59) OTHER COMMENTS: SEEM ALONG SPILLWAY THAT WAS REPAIRED WAS NOT REPAIRED PROPERLY AND IS ALREADY FALLING APART. NEW OWNERS SAID THEY WILL REPAIR PROPERLY.		SPILLWAY	ACCEPTABLE	POOR

		SAFE STORAGE LEVEL RECOMMENDED AS A RESULT OF THIS INSPECTION FT BELOW DAMS CREST RESTRICTED LEVEL THE PER OW SPILL MAY OPEST		
The State Engineer by providing this dam safety inspection report, does not assume responsibility for any unsafe condition of the subject dam. The sole responsibility for the safety of this dam rests with the reservior owner or operator, who should take every step necessary to prevent damages caused by leakage or overflow of waters from the reservoir or floods resulting from a failure of the dam.	□ (80) □ (81) □ (82) □ (83) □ (84) □ (85) □ (86) □ (87) □ (88) □ (89) ENGINI (Plan & □ (90) □ (91) □ (92) □ (93) □ (94) □ (95)	ITEMS REQUIRING ACTION BY OWNER TO IMPROVE THE SAFETY OF THE DAM ENANCE - MINOR REPAIR - MONITORING PROVIDE ADDITIONAL RIPRAP: LUBRICATE & OPERATE OUTLET GATES THROUGH FULL CYCLE: CLEAR TREES AND/OR BRUSH FROM: UPS & DAS SLOPES INITIATE RODENT CONTROL PROGRAM & PROPERLY BACKFILL EXISTING HOLES: GRADE CREST TO A UNIFORM ELEVATION WITH DRAINAGE TO THE UPSTREAM SLOPE: PROVIDE SURFACE DRAINAGE FOR: MONITOR: DEVELOP AND SUBMIT AN EMERGENCY ACTION PLAN: OTHER: CTHER: ETERING - EMPLOY AN ENGINEER EXPERIENCED IN DESIGN & CONSTRUCTION OF DAMS TO: Specification must be approved by State Engineer prior to construction) PREPARE PLANS & SPECIFICATIONS FOR THE REHABILITATION OF THE DAM: PREPARE AS-BUILT DRAWINGS OF: PERFORM A GEOTECHNICAL INVESTIGATION TO EVALUATE THE STABILITY OF THE DAM: PERFORM A HYDROLOGIC STUDY TO DETERMINE REQUIRED SPILLWAY SIZE: PREPARE PLANS & SPECIFICATIONS FOR AN ADEQUIRED SPILLWAY. SET UP A MONITORING SYSTEM INCLUDING WORK SHEETS, REDUCED DATA & GRAPHED RESULTS: PERFORM AN INTERNAL INSPECTION OF THE OUTLET: OTHER: OTHER: OTHER: OTHER:		
THE RESERVO IN ORDER TO R Based on this	OIR HE PLANS RE-CLASSIFY D S Safety Insp	INQUIRED ABOUT THE POSSIBILITY OF HAVING DAM RE-CLASSIFIED (FROM HIGH HAZARD TO SIGNIFICANT HAZARD), BASED ON A NEW SURVEY OF THE SIZE OF TO CONDUCT; DAM-OWNER STILL DETERMINED TO SURVEY THE DAM (ADVISED HIM THAT ENGINEER/PROFESSIONAL SURVEYOR MUST CONDUCT SURVEY AM. DAM CONDITION IS GREAT AND NEW OWNER IS SCHEDULED TO MAINTAIN THE VEGETATION PROPERLY ONCE THE GROUND DRIES OUT. SOME ANIMAL BURROWS Dection and recent file review, the overall condition is determined to be:		ACCEPTABLE
☑ (63) BRUS	SH ON UPS	☐ (60) NONE ☐ (61) ACCESS ROAD NEEDS MAINTENANCE ☐ (62) CATTLE DAMAGE TREAM SLOPE, CREST, DOWNSTREAM, TOE ☐ (64) TREES ON UPSTREAM SLOPE, CREST, DOWNSTREAM SLOPE, TOE TY ON UPSTREAM SLOPE, CREST, DOWNSTREAM, SLOPE, TOE ☐ (66) DETERIORATED CONCRETE-FACING, OUTLET, SPILLWAY ING MECHANISM NEED MAINTENANCE ☐ (68) OTHER ☐ DOCESS OF REMOVING WEEDS AND TREES FROM DOWNSTREAM SLOPE OF DAM AND WILL PROPERLY REPAIR THE SEAM ALONG THE SPILLWAY. NEEDS TO ERADICATE RODENTS FROM DIGGIN HOLES	COOD COOD	ACCEPTABLE
MONITORING COMMENTS	RVEY MONU G OF INSTE	TATION FOUND: ☐ (110) NONE ☐ (111) GAGE ROD ☐ (112) PIEZOMETERS ☐ (113) SEEPAGE WEIRS/FLUMES IMENTS ☑ (115) OTHER RUMENTATION: ☐ (116) NO ☐ (117) YES PERIODIC INSPECTIONS BY: ☑ (118) OWNER ☐ (119) ENGINEER BE TO MEASURE DEPTHWATER LOSS, OWNERS SAID THAT IT IS REMOTELY MONITORED.	DAINO INCOME	ACCEPTABLE

GUIDELINES FOR DETERMINING CONDITIONS

CONDITIONS OBSERVED - APPLIES TO UPSTEAM SLOPE, CREST, DOWNSTREAM SLOPE, OUTLET, SPILLWAY

GOOD

In general, this part of the structure has a near new appearance, and conditions observed in this are do not appear to threaten the safety of the dam.

ACCEPTABLE

Although general cross-section is maintained, surfaces may be irregular, eroded, rutted, spalled, or otherwise not in new condition. Conditions in this area do not currently appear to threaten the safety of the dam.

POOR

Conditions observed in this area appear to threaten the safety of the dam.

CONDITIONS OBSERVED - APPLIES TO SEEPAGE

GOOD

No evidence of uncontrolled seepage. No unexplained increase in flows from designed drains. All seepage is clear. Seepage conditions do not appear to threaten the safety of the dam.

ACCEPTABLE

Some seepage exists at areas other than the drain outfalls, or other designed drains. No unexplained increase in seepage. All seepage is clear. Seepage conditions observed do not currently appear to threaten the safety of the dam

POOR

Seepage conditions observed appear to threaten the safety of the dam. Examples:

- 1) Designed drain or seepage flows have increased without increase in reservior level.
- 2) Drain or seepage flows contain sediment,
- i.e., muddy water or particles in jar samples.
- 3) Widespread seepage, concentrated seepage or ponding appears to threaten the safety of the dam.

CONDITIONS OBSERVED - APPLIES TO MONITORING

GOOD

Instrumentation and monitoring described under acceptable are being exceeded, as described under comments in the report.

ACCEPTABLE

Instrumentation is provided in accordance with the rules. Special instrumentation and monitoring deemed necessary is provided. The owner monitors the dam and records data in accordance with the rules, and submits the data annually or more frequently if required.

POOR

Required instrumentation and monitoring are not provided or required periodic readings are not being made or unexplained changes in readings are not reacted to by the owner.

CONDITIONS OBSERVED - APPLIES TO MAINTENANCE AND REPAIR

GOOD

Owner has a plan for annual maintenance. Dam consistently receives effective on-going maintenance and repair.

ACCEPTABLE

Dam receives maintenance in accordance with a plan, but some maintenance items need to be addressed. No major repairs are required.

POOR

No annual maintenance plan in effect. Dan does not appear to receive adequate maintenance. One or more items needing maintenance or repair have begun to threaten the safety of the dam. Lack of maintenance prevents thorough inspection.

OVERALL CONDITIONS

SATISFACTORY

The safety inspection indicates no conditions that appear to threaten the safety of the dam and the dam is expected to perform satisfactorily under all design loading conditions.

CONDITIONALLY SATISFACTORY

The safety inspection indicates symptoms of structural distress (excessive seepage, evidence of major displacements, etc.) which if conditions worsen, could lead to the failure of the dam. Essential monitoring, inspection and maintenance must be performed as a requirement for conditinued full storage in the reservoir or storage at a reduced level. There are no requirements if maintained at the restricted level.

UNSATISFACTORY

No annual maintenance plan in effect. Dan does not appear to receive adequate maintenance. One or more items needing maintenance or repair have begun to threaten the safety of the dam. Lack of maintenance prevents thorough inspection.

SAFE STORAGE LEVEL

FULL STORAGE

Dam may be used to full capacity with no conditions attached.

CONDITIONAL FULL STORAGE

Dam may be used to full storage if certain monitoring, maintenance or operational conditions are met.

RESTRICTION

Dam may no be used to full capacity, but must be operated at some reduced level in the interest of public safety.

CLASSIFICATION OF DAMS

- CLASS 1 Loss of human life is expected in the event of failure of the dam.
- CLASS 2 Significant damage is expected in the event of failure of the dam, but no loss of human life is expected.
- CLASS 3-A small amount of damage is expected. Loss of human life and significant damage are not expected.
- CLASS 4 No loss of human is expected and damage will occur only to the dam owner's property.

U.S. Department of Agriculture Natural Resources Conservation Service

WATERSHED STRUCTURE INSPECTION REPORT

Date of	of Inspe	ction _	July 2016	
County Craighead W	atershe	d Big C	reek	Site_2
Field Office Jonesboro		_	Sponsor_Arkansas Game & Fish Commission	1
Legal Description, SecTRR		-		
"YES" responses need explanation added to "Remarks" s "NO" responses indicate problems not observed during in Non-applicable items should be lined out.			hat? Where? Extent?)	
ITEM	YES	NO	REMARKS	
1. General Conditions				
a. Alterations to dam?		✓		
b. Development in downstream floodplain?		✓		
c. Development around reservoir?		✓		
2. Embankment				
a. Is vegetative cover inadequate?		✓		
b. Are trees growing on either slope?		✓		
c. Is brush/weed control needed?		✓		
d. Are trees growing at waterline?	✓			
e. Is drift debris present?		✓		
f. Are cracks, settlement, or bulges present?		✓		
g. Are animal burrows present?		✓		
h. Are trails present?		✓		
3. Front Slope Protection				
a. Any wave damage observed?		✓		
b. Is riprap inadequate?		✓		
c. Are rodent holes present?		✓		
4. Inlet Structure and Gate Valves				
a. Does concrete exhibit deterioration?		✓		
b. Is concrete reinforcement exposed?		✓		
c. Was leakage observed inside inlet?		✓		
d. Any corrosion of metal appurtenances?		✓		
e. Is debris guard obstructed?		✓		
f. Is debris guard corroded?		✓		
g. Is gate stem broken or bent?		✓		
h. Are components missing?		✓		
i. Was gate determined not operational?		✓	Date gate last operated: Not Sure	
j. Has inlet been modified to alter water surface?		✓		
5. Principal Spillway Conduit		•	•	
a. Is concrete conduit deteriorated?		✓		
b. Is metal conduit corroded?		✓		
c. Was leakage observed at pipe joints?		✓		

ITEM	YES NO	REMARKS
6. Auxiliary Spillway		
a. Is vegetative cover inadequate?	✓	
b. Any animal trails observed?	✓	
c. Any vehicular trails observed?	✓	
d. Is flow area obstructed?	✓	
e. Is control section disturbed?	✓	
7. Principal Spillway Release Channel		
a. Does scour hole appear unstable?	✓	
b. Any boils observed?	✓	
c. Is riprap inadequate?	✓	
d. Any seepage observed?	✓ _	
e. Is conduit outlet submerged?	✓	
f. Is conduit outlet not properly supported?	✓	
g. Is outlet channel obstructed?	✓	
h. Is outlet channel degrading?	✓	
i. Is foundation drain submerged?	✓	
j. Is foundation drain rodent barrier missing?	✓	
k. Is foundation drain not functional?	✓	
8. Perimeter Fence		
a. Is fence inadequate?	✓	
b. Are gates open?	✓	
9. Easements/landrights		
a. Are terms of landrights out of compliance?	✓	
b. Are landrights boundaries being encroached upon?		
	eding 12 mo	onths by sponsors and/or NRCS, including approximate cost and
date completed).		
ACTIONS NEEDED: (Identify items by priority: low - (Indicate date assistance reques		
High - Trees at waterline need sprayed and cut.		
riigii rrood at wateriirid rioda oprayda aria dat.		
		Jal Craig Dagah Civil Francis
		/s/ Craig Roach, Civil Engineer
Sponsor Representative		NRCS Representative
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(Adapted from Oklahoma NRCS)		

U.S. Department of Agriculture Natural Resources Conservation Service

WATERSHED STRUCTURE INSPECTION REPORT

Date	of Inspe	ction _	July 2016	
County Craighead V	Watershee	Big C	reek	Site_13
Field Office Jonesboro		_	Sponsor Big Creek Watershed Improvement	District
Legal Description, SecTRR				
"YES" responses need explanation added to "Remarks" "NO" responses indicate problems not observed during Non-applicable items should be lined out.			hat? Where? Extent?)	
ITEM	YES	NO	REMARKS	
1. General Conditions		!	1	
a. Alterations to dam?		✓		
b. Development in downstream floodplain?	✓		Vacant Subdivision immediately downstream of dam.	Lots are for sale and will eventually be built on.
c. Development around reservoir?	<u> </u>	√		
2. Embankment				
a. Is vegetative cover inadequate?		√		
b. Are trees growing on either slope?		1	Trees are growing in two cross fences.	
c. Is brush/weed control needed?		1		
d. Are trees growing at waterline?		√		
e. Is drift debris present?		√		
f. Are cracks, settlement, or bulges present?		· ✓		
g. Are animal burrows present?		· ✓		
h. Are trails present?		1		
3. Front Slope Protection				
a. Any wave damage observed?		√		
b. Is riprap inadequate?			N/A	
c. Are rodent holes present?	_	1		
4. Inlet Structure and Gate Valves				
a. Does concrete exhibit deterioration?		/		
b. Is concrete reinforcement exposed?	<u> </u>	· ✓		
c. Was leakage observed inside inlet?		·		
d. Any corrosion of metal appurtenances?	<u> </u>	1		
e. Is debris guard obstructed?	1	Ė	Beaver activity has inlet port hole partly clogged.	
f. Is debris guard corroded?		√		
g. Is gate stem broken or bent?	_	1		
h. Are components missing?		· /		
i. Was gate determined not operational?		1	Date gate last operated: Not sure	
j. Has inlet been modified to alter water surface?		1	Date gate fast operator.	
5. Principal Spillway Conduit		. •	1	
a. Is concrete conduit deteriorated?		/		
b. Is metal conduit corroded?		√		
c. Was leakage observed at pipe joints?	+	✓		
c. was leakage observed at pipe joints!	1	. *		

ITEM	YES	NO	REMARKS
6. Auxiliary Spillway			
a. Is vegetative cover inadequate?		✓	
b. Any animal trails observed?		✓	
c. Any vehicular trails observed?		✓	
d. Is flow area obstructed?		✓	
e. Is control section disturbed?		✓	
7. Principal Spillway Release Channel			
a. Does scour hole appear unstable?		✓	
b. Any boils observed?		✓	
c. Is riprap inadequate?			N/A
d. Any seepage observed?	ļ	✓	
e. Is conduit outlet submerged?		✓	
f. Is conduit outlet not properly supported?	ļ	✓	
g. Is outlet channel obstructed?		✓	
h. Is outlet channel degrading?		✓	
i. Is foundation drain submerged?		✓	
j. Is foundation drain rodent barrier missing?		✓	
k. Is foundation drain not functional?		✓	
8. Perimeter Fence			,
a. Is fence inadequate?			No fence
b. Are gates open?			No gates or fence
9. Easements/landrights			
a. Are terms of landrights out of compliance?		✓	
b. Are landrights boundaries being encroached upon?		✓	onths by sponsors and/or NRCS, including approximate cost and
A CTHONG NEEDED. GL. 4'S 'A		12	
ACTIONS NEEDED: (Identify items by priority: low-			
(Indicate date assistance reques	ted; te	echnic	al or financial).
Low - Beaver activity in pool area has riser port	hole	partia	ally blocked.
Sponsor Representative		-	/s/ Craig Roach, Civil Engineer
(Adapted from Oklahoma NRCS)			
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U.S. Department of Agriculture Natural Resources Conservation Service

WATERSHED STRUCTURE INSPECTION REPORT

Date	of Inspe	ction _	July 2016	
County Craighead V	Vatershee	d Big C	reek	Site_21
Field Office Jonesboro		_	Sponsor_Big Creek Watershed Improvemen	nt District
Legal Description, SecTRR		-		
"YES" responses need explanation added to "Remarks" "NO" responses indicate problems not observed during i Non-applicable items should be lined out.			/hat? Where? Extent?)	
ITEM	YES	NO	REMARKS	
1. General Conditions				
a. Alterations to dam?		✓		
b. Development in downstream floodplain?		✓		
c. Development around reservoir?		✓		
2. Embankment				
a. Is vegetative cover inadequate?		✓		
b. Are trees growing on either slope?		✓		
c. Is brush/weed control needed?		✓		
d. Are trees growing at waterline?		✓		
e. Is drift debris present?		✓		
f. Are cracks, settlement, or bulges present?		✓		
g. Are animal burrows present?		✓		
h. Are trails present?	✓		Major ATV Trails present.	
3. Front Slope Protection				
a. Any wave damage observed?	✓			
b. Is riprap inadequate?		✓		
c. Are rodent holes present?		✓		
4. Inlet Structure and Gate Valves				
a. Does concrete exhibit deterioration?		✓		
b. Is concrete reinforcement exposed?		✓		
c. Was leakage observed inside inlet?		✓		
d. Any corrosion of metal appurtenances?		✓		
e. Is debris guard obstructed?		✓		
f. Is debris guard corroded?		✓		
g. Is gate stem broken or bent?		✓		
h. Are components missing?		✓		
i. Was gate determined not operational?		✓	Date gate last operated: Not Sure	
j. Has inlet been modified to alter water surface?		✓		
5. Principal Spillway Conduit				
a. Is concrete conduit deteriorated?		✓		
b. Is metal conduit corroded?		✓		
c. Was leakage observed at pipe joints?		✓		

YELL (TIEG NO	DELCARYO
ITEM	YES NO	REMARKS
6. Auxiliary Spillway a. Is vegetative cover inadequate?		
b. Any animal trails observed?	/	+
c. Any vehicular trails observed?	\ \ \ \ \	-
d. Is flow area obstructed?	\ \ \ \ \	
e. Is control section disturbed?	\ \ \ \ \	
7. Principal Spillway Release Channel	<u> </u>	
a. Does scour hole appear unstable?	1	T
b. Any boils observed?	1	
c. Is riprap inadequate?	1	
d. Any seepage observed?	✓	
e. Is conduit outlet submerged?	√	
f. Is conduit outlet not properly supported?	✓	
g. Is outlet channel obstructed?	✓	
h. Is outlet channel degrading?	✓	
i. Is foundation drain submerged?	✓	
j. Is foundation drain rodent barrier missing?	✓	
k. Is foundation drain not functional?	✓	
8. Perimeter Fence		
a. Is fence inadequate?	✓	
b. Are gates open?	✓	
9. Easements/landrights		
a. Are terms of landrights out of compliance?	✓	
b. Are landrights boundaries being encroached upon?		nonths by sponsors and/or NRCS, including approximate cost and
None.		
ACTIONS NEEDED: (Identify items by priority: low - (Indicate date assistance reques		
		one side of control section. Haunch on right side of started washing on front slope that needs repaired.
Sponsor Representative		/s/ Craig Roach, Civil Engineer NRCS Representative
(Adapted from Oklahoma NRCS)		
(Adapted Hotti Okianoma Nikos)		

ENGINEERS INSPECTION REPORT
ARKANSAS NATURAL RESOURCES COMMISSION - DAM SAFETY BRANCH
101 E. CAPITOL AVENUE, #350, LITTLE ROCK, AR 72201 (501) 682-3986

	M NAME BROADMOOR DAM PERMIT #485 DATE OF INSPECTION 1/25/2018 M ID AR00130 DATE OF LAST INSPECTION 03/23/17				_
OW	/NER NAME_BROADMOOR P.O.A. OWNER PHONE 501-661-9879				_
CO CL/ CU	DRESS 15 BELMONT DRIVE LITTLE ROCK, AR NTACT NAME NONE GATE LOCK COMBINATION = 1950 ASS H CAPACITY 80 AF SURFACE AREA 16 AC HEIGHT 26 FT CREST LENGTH 625 FT CREST RRENT RESTRICTION (NO) (YES) LEVEL EAP ON FILE (NO) (YES) SPECTION PARTY REPRESENTING WALT MACPHEE, ANDC		- <u>~24</u>	F	- - -
	DIRECTIONS: MARK AN X FOR CONDITIONS FOUND, GIVE LOCATION AND EXTENT WITH NUMBER REFERENCE FIELD CONDITIONS OBSERVED WATER LEVEL - BELOW DAM CREST _2 FT BELOW SPILLWAY In FT GAGE ROD GROUND MOISTURE CONDITION: DRY_X WET SNOWCOVER OTHER	Ξ			
UPSTREAM SLOPE	PROBLEMS NOTED: □ (0) NONE □ (1) RIPRAP - MISSING, SPARSE, DISPLACED, WEATHERED □ (2) WAVE EROSION-WITH SCARPS □ (3) CRACKS WITH DISPLACEMENT □ (4) SINKHOLE □ (5) APPEARS TOO STEEP □ (6) DEPRESSIONS OR BULGES □ (7) SLIDES □ (8) CONCRETE FACING-HOLES, CRACKS, DISPLACED, UNDERMINED □ (9) OTHERCOMMENTS: RIP-RAP IS MISSING IN PLACES, SPARCE, AND WEATHERED. EROSION IS OCCURRING IN MULTIPLE LOCATIONS.	LIDSTDEAM SLODE	Good Good	ACCEPTABLE	Poor
CRESI	PROBLEMS NOTED: ☐ (10) NONE ☐ (11) RUTS OR PUDDLES ☐ (12) EROSION ☐ (13) CRACKS - WITH DISPLACEMENT ☐ (14) SINKHOLES ☐ (15) NOT WIDE ENOUGH ☐ (16) LOW AREA ☐ (17) MISALIGNMENT ☐ (18) INADEQUATE SURFACE DRAINAGE ☐ (19) OTHER	CDEGT	G000	ACCEPTABLE	Poor
DOWNSTREAM SLOPE	PROBLEMS NOTED: (20) NONE (21) LIVESTOCK DAMAGE (22) EROSION OR GULLIES (23) CRACKS - WITH DISPLACEMENT (24) SINKHOLE (25) APPEARS TOO STEEP (26) DEPRESSION OR BULGES (27) SLIDE (28) SOFT AREAS (29) OTHER CUT-OFF OF TOE (29) OTHER MULTIPLE SMALL DEPRESSIONS AND BULGES. EROSION APPEARS TO BE INCREASING. ANIMAL BURROWS. SINKHOLE WITH INCREASED/MUDDY SEEPAGE EVIDENCE OF IMPROPER TREE REMOVAL	DOWNSTDEAM SLODE	GOOD	ACCEPTABLE	Poor
SEEPAGE	PROBLEMS NOTED: (30) NONE (31) SATURATED EMBANKMENT AREA (32) SEEPAGE EXITS ON EMBANKMENT (33) SEEPAGE EXITS AT POINT SOURCE (34) SEEPAGE AREA AT TOE (35) FLOW ADJACENT TO OUTLET (36) SEEPAGE INCREASED/MUID DRAIN OUTFALLS SEEN NO (37) FLOW INCREASED/MUDDY (38) DRAIN DRY/OBSTRUCTED (39) OTHER COMMENTS: SEEPAGE AREA ON RIGHT SIDE OF DAM NEAR TOE; SINKHOLE WITH INCREASED/MUDDY SEEPAGE NEAR SPILLWAY (APPEARS TO BE LEAKING NEAR WATER METER; CENTRAL AR WATER (CAW) WAS CONTACTED, TESTED WATER, CLAIMS NOT THEIRS)	DDY S		ACCEPTABLE	Poor
OUILEI	PROBLEMS NOTED: (40) NONE (41) NO OUTLET FOUND (42) POOR OPERATING ACCESS (43) INOPERABLE (44) UPSTREAM OR DOWNSTREAM STRUCTURE DETERIORATED (45) OUTLET OPERATED DURING INSPECTION (NO (121) YES INTERIOR INSPECTED (120) NO (121) YES (46) CONDUIT DETERIORATED OR COLLAPSED (47) JOINTS DISPLACED (48) VALVE LEAKAGE DRAIN OUTFALLS SEEN (NO (122) YES (49) OTHER (29) OTHER (29) OTHER (29) OTHER (20) O	OITI ET	0000	ACCEPTABLE	Poor
SPILLWAY	PROBLEMS NOTED: ☑ (50) NONE ☐ (51) NO EMERGENCY SPILLWAY FOUND ☐ (52) EROSION WITH BACKCUTTING ☐ (53) CRACK - WITH DISPLACEMENT ☐ (54) APPEARS TO BE STRUCTURALLY INADEQUATE ☐ (55) APPEARS TOO SMALL ☐ (56) INADEQUATE FREEBOARD ☑ (57) FLOW OBSTRUCTED ☐ (58) CONCRETE DETERIORATED/UNDERMINED ☐ (59) OTHER ☐ (59) OTHER ☐ (50) COMMENTS:	AVW I IIds	Good	ACCEPTABLE	Poor

INSPECTED BY

☐ (114) SURV MONITORING	CURMENTATION FOUND: (110) NONE (1111) GAGE ROD (112) PIEZOMETERS (113) SEEPAGE WEIRS/FLUMES EY MONUMENTS (115) OTHER OF INSTRUMENTATION: (116) NO (117) YES PERIODIC INSPECTIONS BY: (118) OWNER (119) ENGINEER OF EXISTING INSTRUMENTATION. NO OWNER INSPECTION HAS BEEN SUBMITTED.	O 0000	ACCEPTABLE
PROBLEMS N ☑ (63) BRUSH ☑ (65) RODE: ☐ (67) GATE &	OTED: (60) NONE (61) ACCESS ROAD NEEDS MAINTENANCE (62) CATTLE DAMAGE ON UPSTREAM SLOPE, CREST, DOWNSTREAM, TOE (64) TREES ON UPSTREAM SLOPE, CREST, DOWNSTREAM SLOPE, TOE T ACTIVITY ON UPSTREAM SLOPE, CREST, DOWNSTREAM, SLOPE, TOE (66) DETERIORATED CONCRETE-FACING, OUTLET, SPILLWAY OPERATING MECHANISM NEED MAINTENANCE (68) OTHER WHOM I CONCRETE C	0 0000	ACCEPTABLE TACCE
Based on this	EAP. INCREASED/MUDDY SEEPAGE AT SINKHOLE MAIN CONCERN. IMPROPER TREE REMOVAL OF TREES OVER 6 IN. afety Inspection and recent file review, the overall condition is determined to be: ACTORY (72) CONDITIONALLY SATISFACTORY (73) UNSATISFACTORY	0000	ACCEPTABLE
The State Engineer by providing this dam safety inspection report, does not assume responsibility for any unsafe condition of the subject dam. The sole responsibility for the safety of this dam rests with the reservior owner or operator, who should take every step necessary to prevent damages caused by leakage or overflow of waters from the reservoir or floods resulting from a failure of the dam.	ITEMS REQUIRING ACTION BY OWNER TO IMPROVE THE SAFETY OF THE DAM MAINTENANCE - MINOR REPAIR - MONITORING [8] PROVIDE ADDITIONAL RIPRAP: UPSTREAM SLOPE [8] LUBRICATE & OPERATE OUTLET GATES THROUGH FULL CYCLE: [8] CLEAR TREES AND/OR BRUSH FROM: SIGNIFICANT TREE AND BRUSH COVER ON DOWNSTREAM SLOPE [8] (S3) INITIATE RODENT CONTROL PROGRAM & PROPERLY BACKFILL EXISTING HOLES: DOWNSTREAM SLOPE [8] (S4) GRADE CREST TO A UNIFORM ELEVATION WITH DRAINAGE TO THE UPSTREAM SLOPE: [8] (S5) PROVIDE SURFACE DRAINAGE FOR: [8] (S6) MONITOR: SEEPAGE [8] (S7) DEVELOP AND SUBMIT AN EMERGENCY ACTION PLAN: [8] (S8) OTHER: [9] (S9) OTHER: [9] OTHER: [9] PREPARE PLANS & SPECIFICATIONS FOR THE REHABILITATION OF THE DAM: [9] PREPARE PLANS & SPECIFICATIONS FOR THE REHABILITATION OF THE DAM: [9] PREPORM A GEOTECHNICAL INVESTIGATION TO EVALUATE THE STABILITY OF THE DAM: [9] PREPORM A GEOTECHNICAL INVESTIGATION TO EVALUATE THE STABILITY OF THE DAM: [9] PREPORM A SPECIFICATIONS FOR AN ADEQUATE SPILLWAY: [9] PERFORM A GEOTECHNICAL INVESTIGATION FOR AN ADEQUATE SPILLWAY: [9] PERFORM AN INTERNAL INSPECTION OF THE OUTLET: [9] OTHER: [9] OTHER: [9] OTHER: [9] OTHER: [9] OTHER: [9] OTHER:		
REASON FOR RI	SAFE STORAGE LEVEL RECOMMENDED AS A RESULT OF THIS INSPECTION (101) FULL STORAGE (102) CONDITIONAL FULL STORAGE OFFICIAL ORDER TO FOLLOW TO (103) RECOMMENDED RESTRICTION STRICTION:	EN —	
ACTIONS REQUI	RED FOR CONDITIONAL FULL STORAGE OR CONTINUED STORAGE AT THE RESTRICTED LEVEL:		
Engineer's	Owner's		_

OWNER/OWNER'S REPRESENTATIVE

GUIDELINES FOR DETERMINING CONDITIONS

CONDITIONS OBSERVED - APPLIES TO UPSTEAM SLOPE, CREST, DOWNSTREAM SLOPE, OUTLET, SPILLWAY

GOOD

In general, this part of the structure has a near new appearance, and conditions observed in this are do not appear to threaten the safety of the dam.

ACCEPTABLE

Although general cross-section is maintained, surfaces may be irregular, eroded, rutted, spalled, or otherwise not in new condition. Conditions in this area do not currently appear to threaten the safety of the dam.

POOR

Conditions observed in this area appear to threaten the safety of the dam.

CONDITIONS OBSERVED - APPLIES TO SEEPAGE

GOOD

No evidence of uncontrolled seepage. No unexplained increase in flows from designed drains. All seepage is clear. Seepage conditions do not appear to threaten the safety of the dam.

ACCEPTABLE

Some seepage exists at areas other than the drain outfalls, or other designed drains. No unexplained increase in seepage. All seepage is clear. Seepage conditions observed do not currently appear to threaten the safety of the dam

POOR

Seepage conditions observed appear to threaten the safety of the dam. Examples:

- 1) Designed drain or seepage flows have increased without increase in reservior level.
- 2) Drain or seepage flows contain sediment,
- i.e., muddy water or particles in jar samples.
- 3) Widespread seepage, concentrated seepage or ponding appears to threaten the safety of the dam.

CONDITIONS OBSERVED - APPLIES TO MONITORING

GOOD

Instrumentation and monitoring described under acceptable are being exceeded, as described under comments in the report.

ACCEPTABLE

Instrumentation is provided in accordance with the rules. Special instrumentation and monitoring deemed necessary is provided. The owner monitors the dam and records data in accordance with the rules, and submits the data annually or more frequently if required.

POOR

Required instrumentation and monitoring are not provided or required periodic readings are not being made or unexplained changes in readings are not reacted to by the owner.

CONDITIONS OBSERVED - APPLIES TO MAINTENANCE AND REPAIR

GOOD

Owner has a plan for annual maintenance. Dam consistently receives effective on-going maintenance and repair.

ACCEPTABLE

Dam receives maintenance in accordance with a plan, but some maintenance items need to be addressed. No major repairs are required.

POOR

No annual maintenance plan in effect. Dan does not appear to receive adequate maintenance. One or more items needing maintenance or repair have begun to threaten the safety of the dam. Lack of maintenance prevents thorough inspection.

OVERALL CONDITIONS

SATISFACTORY

The safety inspection indicates no conditions that appear to threaten the safety of the dam and the dam is expected to perform satisfactorily under all design loading conditions.

CONDITIONALLY SATISFACTORY

The safety inspection indicates symptoms of structural distress (excessive seepage, evidence of major displacements, etc.) which if conditions worsen, could lead to the failure of the dam. Essential monitoring, inspection and maintenance must be performed as a requirement for conditinued full storage in the reservoir or storage at a reduced level. There are no requirements if maintained at the restricted level.

UNSATISFACTORY

No annual maintenance plan in effect. Dan does not appear to receive adequate maintenance. One or more items needing maintenance or repair have begun to threaten the safety of the dam. Lack of maintenance prevents thorough inspection.

SAFE STORAGE LEVEL

FULL STORAGE

Dam may be used to full capacity with no conditions attached.

CONDITIONAL FULL STORAGE

Dam may be used to full storage if certain monitoring, maintenance or operational conditions are met.

RESTRICTION

Dam may no be used to full capacity, but must be operated at some reduced level in the interest of public safety.

CLASSIFICATION OF DAMS

- CLASS 1 Loss of human life is expected in the event of failure of the dam.
- CLASS 2 Significant damage is expected in the event of failure of the dam, but no loss of human life is expected.
- CLASS 3-A small amount of damage is expected. Loss of human life and significant damage are not expected.
- CLASS 4 No loss of human is expected and damage will occur only to the dam owner's property.

U.S. Department of Agriculture Natural Resources Conservation Service

WATERSHED STRUCTURE INSPECTION REPORT

Da	te of Inspe	ction _8	3-25-16		
County Cross	Watershee	Cane	y Creek	Site 4	
Field Office Wynne		_	Sponsor_Caney Creek Watershed Improve	ement District	
Legal Description, SecTR_					
"YES" responses need explanation added to "Remarks "NO" responses indicate problems not observed during Non-applicable items should be lined out.			hat? Where? Extent?)		
ITEM	YES	NO	REMARKS		
1. General Conditions					
a. Alterations to dam?		~			
b. Development in downstream floodplain?		~			
c. Development around reservoir?		~			
2. Embankment		l			
a. Is vegetative cover inadequate?		~			
b. Are trees growing on either slope?	· ·	-			
c. Is brush/weed control needed?					
d. Are trees growing at waterline?	~				
e. Is drift debris present?		~			
f. Are cracks, settlement, or bulges present?		~			
g. Are animal burrows present?		~			
h. Are trails present?		~			
3. Front Slope Protection	· I				
a. Any wave damage observed?		~			
b. Is riprap inadequate?		~			
c. Are rodent holes present?		~			
4. Inlet Structure and Gate Valves	· I				
a. Does concrete exhibit deterioration?		~			
b. Is concrete reinforcement exposed?		~			
c. Was leakage observed inside inlet?		~			
d. Any corrosion of metal appurtenances?		~			
e. Is debris guard obstructed?		~			
f. Is debris guard corroded?		~			
g. Is gate stem broken or bent?		~			
h. Are components missing?		~			
i. Was gate determined not operational?		~	Date gate last operated: unknown		
j. Has inlet been modified to alter water surface?		~			
5. Principal Spillway Conduit	•				
a. Is concrete conduit deteriorated?		~			
b. Is metal conduit corroded?		~			
c. Was leakage observed at pipe joints?		~			

ITEM	YES	NO	REMARKS
6. Auxiliary Spillway			
a. Is vegetative cover inadequate?		V	
b. Any animal trails observed?		~	
c. Any vehicular trails observed?		~	
d. Is flow area obstructed?		~	
e. Is control section disturbed?		~	
7. Principal Spillway Release Channel			
a. Does scour hole appear unstable?		~	
b. Any boils observed?		~	
c. Is riprap inadequate?	>		
d. Any seepage observed?		~	
e. Is conduit outlet submerged?		~	
f. Is conduit outlet not properly supported?	~		
g. Is outlet channel obstructed?		~	
h. Is outlet channel degrading?	~		
i. Is foundation drain submerged?		~	
j. Is foundation drain rodent barrier missing?		~	
k. Is foundation drain not functional?		~	
8. Perimeter Fence			
a. Is fence inadequate?		~	
b. Are gates open?		~	
9. Easements/landrights			
a. Are terms of landrights out of compliance?		~	
b. Are landrights boundaries being encroached upon?		~	onths by sponsors and/or NRCS, including approximate cost and
None.			
ACTIONS NEEDED: (Identify items by priority: low-	next	12 mo	nths; high - as soon as possible).
(Indicate date assistance reques			
Dam needs bushhogged in Fall 2016. Spillway	chan	nel ar	nd conduit support need stabilization.
		-	/s/ Caleb Henry, Civil Engineer
Sponsor Representative			NRCS Representative
(Adapted from Oklahoma NRCS)			

U.S. Department of Agriculture Natural Resources Conservation Service

WATERSHED STRUCTURE INSPECTION REPORT

Date of	of Inspe	ction _	3-25-16	
County Cross W	atershe	d Cane	y Creek	Site 5
Field Office Wynne		_	Sponsor_Caney Creek Watershed Improvement	nt District
Legal Description, SecTRR				
"YES" responses need explanation added to "Remarks" s "NO" responses indicate problems not observed during ir Non-applicable items should be lined out.			hat? Where? Extent?)	
ITEM	YES	NO	REMARKS	
1. General Conditions				
a. Alterations to dam?		~		
b. Development in downstream floodplain?		~		
c. Development around reservoir?		~		
2. Embankment				
a. Is vegetative cover inadequate?		~		
b. Are trees growing on either slope?		~		
c. Is brush/weed control needed?	~			
d. Are trees growing at waterline?		~		
e. Is drift debris present?		~		
f. Are cracks, settlement, or bulges present?		~		
g. Are animal burrows present?		~		
h. Are trails present?		~		
3. Front Slope Protection				
a. Any wave damage observed?		~		
b. Is riprap inadequate?		~		
c. Are rodent holes present?		~		
4. Inlet Structure and Gate Valves				
a. Does concrete exhibit deterioration?		~		
b. Is concrete reinforcement exposed?		~		
c. Was leakage observed inside inlet?		~		
d. Any corrosion of metal appurtenances?		~		
e. Is debris guard obstructed?	~		Soil accumulation on debris guard	
f. Is debris guard corroded?		~		
g. Is gate stem broken or bent?		~		
h. Are components missing?		~		
i. Was gate determined not operational?		~	Date gate last operated: unknown	
j. Has inlet been modified to alter water surface?		~		
5. Principal Spillway Conduit				
a. Is concrete conduit deteriorated?		~		
b. Is metal conduit corroded?		~		
c. Was leakage observed at pipe joints?		~		

Sponsor Representative Sponsor Representative San Is svegetative cover inadequate? a. Is svegetative cover inadequate? b. Any animal trails observed? c. Any vehicular trails observed? c. As now vehicular trails observed? c. Is forware a obstructed? c. Is control section disturbed? c. Is control section disturbed? c. Is control section disturbed? c. Is ripring inadequate? c. Is conduit outlet not properly supported? c. Is conduit outlet not properly supported? c. Is conduit outlet not properly supported? c. Is foundation drain submerged? c. Is foundation drain submerged? c. Is foundation drain inade barrier missing? c. Is foundation drain functional? c. Is foundation drain functional? c. Is foundation drain inade barrier missing? c. Is foundation drain inade barrier missing? c. Is foundation drain submerged? c. Is foundation drain functional? c. Is foundation drain functional functional? c. Is foundation drain funct	ITEM	YES NO	REMARKS
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Dam needs bushhogged in Fall 2016. /s/ Caleb Henry, Civil Engineer Sponsor Representative NRCS Representative			
Sponsor Representative NRCS Representative	Dam needs bushhogged in Fall 2016.		
(Adapted from Oklahoma NRCS)	Sponsor Representative		
	(Adapted from Oklahoma NRCS)		

U.S. Department of Agriculture Natural Resources Conservation Service

WATERSHED STRUCTURE INSPECTION REPORT

Da	te of Inspec	ction _	2/29/2016	
County Yell	Watershee	<u>Ceda</u>	r-Piney	Site 2
Field Office Danville FSC		_	Sponsor_Yell County Conservation District	
Legal Description, SecTR				
"YES" responses need explanation added to "Remarks "NO" responses indicate problems not observed durin Non-applicable items should be lined out.			hat? Where? Extent?)	
ITEM	YES	NO	REMARKS	
1. General Conditions				
a. Alterations to dam?		~		
b. Development in downstream floodplain?		>		
c. Development around reservoir?		~		
2. Embankment				
a. Is vegetative cover inadequate?		~		
b. Are trees growing on either slope?	'		Dam was sprayed an it appears that an 80% die off occurre	ed. Looks like a few trees may have survived
c. Is brush/weed control needed?		~		
d. Are trees growing at waterline?		١		
e. Is drift debris present?		~		
f. Are cracks, settlement, or bulges present?		~		
g. Are animal burrows present?		~		
h. Are trails present?		~		
3. Front Slope Protection	•			
a. Any wave damage observed?		~		
b. Is riprap inadequate?		~		
c. Are rodent holes present?		V		
4. Inlet Structure and Gate Valves	<u> </u>			
a. Does concrete exhibit deterioration?		~		
b. Is concrete reinforcement exposed?		~		
c. Was leakage observed inside inlet?		-	Did not look	
d. Any corrosion of metal appurtenances?		~		
e. Is debris guard obstructed?		~		
f. Is debris guard corroded?		~		
g. Is gate stem broken or bent?		~		
h. Are components missing?		~		
i. Was gate determined not operational?		-	Date gate last operated: unknown	
j. Has inlet been modified to alter water surface?	,	~	<u> </u>	
5. Principal Spillway Conduit			1	
a. Is concrete conduit deteriorated?		~		
b. Is metal conduit corroded?			n/a	
c. Was leakage observed at pipe joints?			did not look inside pipe	
			· ·	

TOTAL S	TTDC 3	DEL LA DAG
ITEM	YES NO) REMARKS
6. Auxiliary Spillway		
a. Is vegetative cover inadequate? b. Any animal trails observed?		
· · · · · · · · · · · · · · · · · · ·	\ \ \ \ \ \ \ \	
c. Any vehicular trails observed? d. Is flow area obstructed?	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	
e. Is control section disturbed?	-	
7. Principal Spillway Release Channel	L L V	
a. Does scour hole appear unstable?		
b. Any boils observed?	\ \ \ \ \ \ \ \	
c. Is riprap inadequate?	· ·	
d. Any seepage observed?	\ \ \ \ \ \ \	
e. Is conduit outlet submerged?	† † ·	
f. Is conduit outlet not properly supported?	<u> </u>	
g. Is outlet channel obstructed?	v -	Riprap has been pushed to the channel entrance, but not enogh to change water surface elevation.
h. Is outlet channel degrading?	· /	
i. Is foundation drain submerged?	· ·	
j. Is foundation drain rodent barrier missing?		
k. Is foundation drain not functional?	· ·	
8. Perimeter Fence		
a. Is fence inadequate?	V	
b. Are gates open?	· ·	
9. Easements/landrights		
a. Are terms of landrights out of compliance?	·	
b. Are landrights boundaries being encroached upon?	~	
ACTIONS NEEDED: (Identify items by priority: low - (Indicate date assistance request)		
Trees/brush on dam needs to be observed this s to be performed this summer or fall.	spring do	determine if further spraying and or brush hogging needs
Sponsor Representative		Digitally signed by JAMES STRINGER DN: c=US, 0=U.S. Government, ou=Department of Agriculture, cn=JAMES STRINGER, 0.9.2342.19200300.100.1.1=12001000497632 Date: 2016.02.29 14:36:00-06'00' NRCS Representative
(Adapted from Oklahoma NPCS)		

ENGINEERS INSPECTION REPORT
ARKANSAS NATURAL RESOURCES COMMISSION - DAM SAFETY BRANCH
101 E. CAPITOL AVENUE, #350, LITTLE ROCK, AR 72201 (501) 682-3986

		F INSPECTION _				_
DAM ID AR01440 OWNER NAME	DATE OF LAS Deer Run Property Owners Association OWNER PHO	T INSPECTION _ NE (870) 283-4655	10/19/2017			_
	30x 346, Evening Shade, AR	ONE (970) 999 4955	ZIP_72532			_
	CONTACT PHOTOGRAPH CAPACITY 310 AF SURFACE AREA 30 AC HEIGHT 40 FT CREST LENG STRICTION (NO) (YES) LEVEL EAP ON FILE (NO) (YES) PARTY REPRESENTING Josh Graham & Stephen Smedley, ANRC	ONE (870) 283-4655 GTH 350 FT	CREST WIDT	ΓΗ <u>16</u>		FT -
	DIRECTIONS: MARK AN X FOR CONDITIONS FOUND, GIVE LOCATION AND EXTENT WI	TH NUMBER REF	FERENCE			
	WATER LEVEL - BELOW DAM CREST4 FT BELOW SPILLWAY FROUND MOISTURE CONDITION: DRY X WET SNOWCOVER OTHER	FT GAGE ROD				
□ (3) CRAC □ (8) CONC	NOTED: (0) NONE (1) RIPRAP - MISSING, SPARSE, DISPLACED, WEATHERED (2) WAVE EROSING WITH DISPLACEMENT (4) SINKHOLE (5) APPEARS TOO STEEP (6) DEPRESSIONS OR BULGORE FACING-HOLES, CRACKS, DISPLACED, UNDERMINED (9) OTHER (5) Water was above the rip-rap and wave erosion has caused scarping and a narrowing in the center of the crest width.			GOOD GOOD	ACCEPTABLE	Poor
	NOTED: □ (10) NONE ☑ (11) RUTS OR PUDDLES □ (12) EROSION □ (13) CRACKS - WITH DISPLAC	EMENT 🗖 (14) SIN	NKHOLES			00
□ (15) NOT □ (19) OTHI	WIDE ENOUGH (16) LOW AREA (17) MISALIGNMENT (18) INADEQUATE SURFACE DRAINAGE			GOOD	ACCEPTABLE	POOR
				SLOPE		0
☐ (24) SINK ☐ (29) OTHI	NOTED: (20) NONE (21) LIVESTOCK DAMAGE (22) EROSION OR GULLIES (23) CRACKS - CHOLE (25) APPEARS TOO STEEP (26) DEPRESSION OR BULGES (27) SLIDE (28) SOFT AF LIVE (28) SOFT AF LIVE (28) SOFT AF LIVE (28) Animal burrows are present.		NT 	DOWNSTREAM SLOPE	ACCEPTABLE	POOR
3 -						O
DRAIN OUTF. (33) SEEP. DRAIN OUTF. (39) OTHE	NOTED: (30) NONE (31) SATURATED EMBANKMENT AREA (32) SEEPAGE EXITS ON EMBANKMENT AREA (33) SEEPAGE (34) SEEP			SEEPAGE	ACCEPTABLE	POOR
(44) UPST INTERIOR IN: (48) VALVE (49) OTHE	NOTED: (40) NONE (41) NO OUTLET FOUND (42) POOR OPERATING ACCESS (43) INOPER REAM OR DOWNSTREAM STRUCTURE DETERIORATED (45) OUTLET OPERATED DURING INSPECTION (SPECTED (120) NO (121) YES (46) CONDUIT DETERIORATED OR COLLAPSED (47) JOINTS DELEAKAGE DRAIN OUTFALLS SEEN (NO (122) YES CR. PVC-SIPHON IN USE DURING TIME OF INSPECTION; OWNERS LOWERING LAKE TO ENSURE SPILLWAY IS NOT ACTIVATED WHILE UNDER OUT OF THE PROPERTY OF THE PROP	NO _ YES DISPLACED		OUTLET GOOD	ACCEPTABLE	Poor
□ (53) CRAC □ (56) INAD	NOTED: (50) NONE (51) NO EMERGENCY SPILLWAY FOUND (52) EROSION WITH BACKCUTTIN (54) WITH DISPLACEMENT (54) APPEARS TO BE STRUCTURALLY INADEQUATE (55) APPEARS TO DEQUATE FREEBOARD (57) FLOW OBSTRUCTED (58) CONCRETE DETERIORATED/UNDERMINED (58) Spillway repairs have been washed out and heavy erosion has occurred.			SPILLWAY	ACCEPTABLE (POOR
	e spillway and the soil repairs that were made have been destroyed by washout and emankment cutting has occurred. Concrete portion of the spillway appears to	o still be under construction v	vith one newer			

INSPECTED BY

MONITORING	

EXISTING INSTURMENTATION FOUND:							
© (63) E	PROBLEMS NOTED: (60) NONE (61) ACCESS ROAD NEEDS MAINTENANCE (62) CATTLE DAMAGE (63) BRUSH ON UPSTREAM SLOPE, CREST, DOWNSTREAM, TOE (64) TREES ON UPSTREAM SLOPE, CREST, DOWNSTREAM SLOPE, TOE (65) RODENT ACTIVITY ON UPSTREAM SLOPE, CREST, DOWNSTREAM, SLOPE, TOE (66) DETERIORATED CONCRETE-FACING, OUTLET, SPILLWAY (67) GATE & OPERATING MECHANISM NEED MAINTENANCE (68) OTHER SPILLWAY REPAIR HAS BEEN ERODED AWAY; NEED TO FIND OUT FURTHER STEPS COMMENTS: CLEAR BRUSH AND VEGETATION FROM LOWER PORTION OF DS SLOPE OF DAM AND MONITOR SEEPAGE CLOSELY FOR SIGNS OF INCREASED/MUDDY DISCHARGE SEEPAGE SHOULD BE CONCENTRATED AWAY FROM THE DAM; TREES REMOVED FROM THE LEFT ABUTMENT						
Based o	SERIOUS ISSUE WITH THE SPILLWAY REPAIR; NEED TO FIND OUT WHAT THE POA PLANS TO DO TO REMEDY THE SITUATION. is Safety Inspection and recent file review, the overall condition is determined to be: ISFACTORY (72) CONDITIONALLY SATISFACTORY (73) UNSATISFACTORY		OVERALL CONDITIONS 1	0000	ACCEPTABLE		
The State Engineer by providing this dam safety inspection report, does not assume responsibility for any unsafe condition of the subject dam. The sole responsibility for the safety of this dam rests with the reservior owner or operator, who chould have one or operator, the condition of the safety of this dam rests.	□ (85) PROVIDE SURFACE DRAINAGE FOR: □ (86) MONITOR: SEEPAGE □ (87) DEVELOP AND SUBMIT AN EMERGENCY ACTION PLAN: □ (88) OTHER: CREATE PLAN TO PROPERLY REPAIR THE SPILLWAY. □ (89) OTHER: ENGINEERING - EMPLOY AN ENGINEER EXPERIENCED IN DESIGN & CONSTRUCTION OF DAMS TO: (Plan & Specification must be approved by State Engineer prior to construction) □ (90) PREPARE PLANS & SPECIFICATIONS FOR THE REHABILITATION OF THE DAM: □ (91) PREPARE AS-BUILT DRAWINGS OF: □ (92) PERFORM A GEOTECHNICAL INVESTIGATION TO EVALUATE THE STABILITY OF THE DAM: □ (93) PERFORM A HYDROLOGIC STUDY TO DETERMINE REQUIRED SPILLWAY: □ (94) PREPARE PLANS & SPECIFICATIONS FOR AN ADEQUATE SPILLWAY: □ (95) SET UP A MONITORING SYSTEM INCLUDING WORK SHEFTS. REDUCED DATA & GRAPHED RESULTS:						
	SAFE STORAGE LEVEL RECOMMENDED AS A RESULT OF THIS INSPECTION (101) FULL STORAGE (102) CONDITIONAL FULL STORAGE (103) RECOMMENDED RESTRICTION RESTRICTED LEVEL OFFICIAL ORDER TO FOLLOW FIT GAGE HEIG NO STORAGE- RESTRICTION: QUIRED FOR CONDITIONAL FULL STORAGE OR CONTINUED STORAGE AT THE RESTRICTED LEVEL:	LLWAY CREST)PEI	N - 			
Engineer's	Owner's Signature	DATE: 10/19/2017			_		

OWNER/OWNER'S REPRESENTATIVE

GUIDELINES FOR DETERMINING CONDITIONS

CONDITIONS OBSERVED - APPLIES TO UPSTEAM SLOPE, CREST, DOWNSTREAM SLOPE, OUTLET, SPILLWAY

GOOD

In general, this part of the structure has a near new appearance, and conditions observed in this are do not appear to threaten the safety of the dam.

ACCEPTABLE

Although general cross-section is maintained, surfaces may be irregular, eroded, rutted, spalled, or otherwise not in new condition. Conditions in this area do not currently appear to threaten the safety of the dam.

POOR

Conditions observed in this area appear to threaten the safety of the dam.

CONDITIONS OBSERVED - APPLIES TO SEEPAGE

GOOD

No evidence of uncontrolled seepage. No unexplained increase in flows from designed drains. All seepage is clear. Seepage conditions do not appear to threaten the safety of the dam.

ACCEPTABLE

Some seepage exists at areas other than the drain outfalls, or other designed drains. No unexplained increase in seepage. All seepage is clear. Seepage conditions observed do not currently appear to threaten the safety of the dam

POOR

Seepage conditions observed appear to threaten the safety of the dam. Examples:

- 1) Designed drain or seepage flows have increased without increase in reservior level.
- 2) Drain or seepage flows contain sediment,
- i.e., muddy water or particles in jar samples.
- 3) Widespread seepage, concentrated seepage or ponding appears to threaten the safety of the dam.

CONDITIONS OBSERVED - APPLIES TO MONITORING

GOOD

Instrumentation and monitoring described under acceptable are being exceeded, as described under comments in the report.

ACCEPTABLE

Instrumentation is provided in accordance with the rules. Special instrumentation and monitoring deemed necessary is provided. The owner monitors the dam and records data in accordance with the rules, and submits the data annually or more frequently if required.

POOR

Required instrumentation and monitoring are not provided or required periodic readings are not being made or unexplained changes in readings are not reacted to by the owner.

CONDITIONS OBSERVED - APPLIES TO MAINTENANCE AND REPAIR

GOOD

Owner has a plan for annual maintenance. Dam consistently receives effective on-going maintenance and repair.

ACCEPTABLE

Dam receives maintenance in accordance with a plan, but some maintenance items need to be addressed. No major repairs are required.

POOR

No annual maintenance plan in effect. Dan does not appear to receive adequate maintenance. One or more items needing maintenance or repair have begun to threaten the safety of the dam. Lack of maintenance prevents thorough inspection.

OVERALL CONDITIONS

SATISFACTORY

The safety inspection indicates no conditions that appear to threaten the safety of the dam and the dam is expected to perform satisfactorily under all design loading conditions.

CONDITIONALLY SATISFACTORY

The safety inspection indicates symptoms of structural distress (excessive seepage, evidence of major displacements, etc.) which if conditions worsen, could lead to the failure of the dam. Essential monitoring, inspection and maintenance must be performed as a requirement for conditinued full storage in the reservoir or storage at a reduced level. There are no requirements if maintained at the restricted level.

UNSATISFACTORY

No annual maintenance plan in effect. Dan does not appear to receive adequate maintenance. One or more items needing maintenance or repair have begun to threaten the safety of the dam. Lack of maintenance prevents thorough inspection.

SAFE STORAGE LEVEL

FULL STORAGE

Dam may be used to full capacity with no conditions attached.

CONDITIONAL FULL STORAGE

Dam may be used to full storage if certain monitoring, maintenance or operational conditions are met.

RESTRICTION

Dam may no be used to full capacity, but must be operated at some reduced level in the interest of public safety.

CLASSIFICATION OF DAMS

- CLASS 1 Loss of human life is expected in the event of failure of the dam.
- CLASS 2 Significant damage is expected in the event of failure of the dam, but no loss of human life is expected.
- CLASS 3-A small amount of damage is expected. Loss of human life and significant damage are not expected.
- CLASS 4 No loss of human is expected and damage will occur only to the dam owner's property.

AJB-DS 235- VAN BURE PERMIT NO. 235 COUNTY CRAWFORD DATE 4-29-8/ CONTACT Ronnie Keener 1. Hazard Rating (Visual observation of homes in flood plain) NO. Putting in the outlet Pipe & pouring Riser Box J pond area is cleared of area for Joke ent OK NEEDS REPAIR Condition of Dam Vert. Alignment NEEDS REPAIR Horiz. Alignment YES Surface Cracks 3. Condition of Abut. Left Abut. (Upstream) The crade for the outlet Boy is almost Left Abut. (Downstream) Complete + forms are ready to pour Right Abut. (Upstream) Right Abut. (Downstream) 4. Condition of Upstream Embankment Construction Erosion Salis la tarily Trees Burrows Other 5. Condition of Downstream Embankment______ ____Erosion_____ Trees Burrows Other 6. Condition of Principal Spillway Condition of Emergency Spillway Normal Clear Murky 8. Condition of Water ____At Weir 9. Water Level Flowing over weir 10. Condition of Toe (noticeable movement) Boils (estimated amount) ____Yes 11. Seepage Amount (est. Saturated Area 12. Shore Line ____Steep ___Moderate ___Gontle 13. Condition of Plunge Basin and Channel 14. Recommendations

VAN BUREN COUNTY CRAWFORD DATE 8-20-8/ CONTACT_ 1. Hazard Rating (Visual observation of homes in flood plain) NO. Construction inspection 2. Condition of Dam Vert. Alignment NEEDS REPAIR OK Horiz, Alignment YES . Surface Cracks OK 3. Condition of Abut. Left Abut. (Upstream) liser wash Left Abut. (Downstream) Red plat Right Abut. (Upstream) Right Abut. (Downstream) 4. Condition of Upstream Embankment Struct Erosion Cutflow Conered Burrows Other 5. Condition of Downstream Embankment Erosion Trees Burrows Other 6. Condition of Principal Spillway 7. Condition of Emergency Spillway Normal Murky Clear 8. Condition of Water At Weir Low 9. Water Level Flowing over weir 10. Condition of Toe (noticeable movement) Boils (estimated amount) ll. Seepage (est. Saturated Area Gentle Moderate Steep 12. Shore Line 13. Condition of Plunge Basin and Channel Recommendations Construction progressing satisfactory

INSPECTOR D.P. Goodwin	LAKE NAME Van Busen, City of
PERMIT NO. 235 COUNTY CRAWFORD	· / /
Hazard Rating NO. Of Homes CONDITION OF: Rockfill So	em - Completed
1. Dam Vert. Alignment Horiz. Alignment Surface Cracks	2. Crest
3. Abutments	
4. Embankments Upstream Erosion Trees Burrows Other, veg. etc.	Downstream O
5. Principal Spillway	Le Riser
6. Emergency Spillway	21
7. Plunge Basin, Channel	, , , , , , , , , , , , , , , , , , ,
8. Water LevelFlowing over	weir At weir Below weir Apke is still felling
9. Toe Movement Boils	
10. Seepagetotal est. amountsaturated area, (ske	etch on back)
11. Recommendations	

Mayor Municipal Complex Van Bunen, 72956

INS	PECTOR	tore	LAKE NAME City of Van Dunger
PER	MIT NO. 23		E 2-9-84 CONTACT
Haz	ard Rating	NO. Of Homes	
CONI	DITION OF:		
	Dam Vert. Alignme Horiz. Alignme Surface Crack Abutments	ks None	2. Crest Erosion Ruts Potholes Trees, Brush
4.	Erosion Trees Burrows	Upstream Nowl Nowl Nowl etc. Amore	noul
5.	Principal Sp	illway OK-	has blood howing through
6.	Emergency Sp	illway	
7.	Plunge Basin	, Channel	
8.	Water Level	Flowing over weir	At weirBelow weir
9.		vement \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\	bleme
LO.	Seepage	total est. amount saturated area, sketch	on back)
l1.	Recommendation	ons	

INSPECTOR Cre	LAKE NAME Van Buren
PERMIT NO. 235 COUNTY Crawfore DAY	TE 11-17-89 CONTACT
Hazard RatingNO. Of Homes	
CONDITION OF:	
1. Dam Vert. Alignment Horiz. Alignment Surface Cracks Nove noted	2. Crest No problem Erosion Pour problem Ruts Potholes None Trees, Brush None
3. Abutments OK he problems	- water
4. Embankments Upstream Erosion he problems wated Trees Burrows Other, veg. etc.	
5. Principal Spillway	
6. Emergency Spillway appeared C	DK
7. Plunge Basin, Channel	
8. Water LevelFlowing over wei	r At weir Below weir
9. Toe Movement wo provide	
10. Seepagetotal est. amountsaturated area, (sketc)	n on back)
11. Recommendations No problem	a noted continue good
maitenance	
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SPECTOR	RMF	PH E	EEL	<u> </u>		L	AKE NAME	CAP B	EDELL		
RMIT NO										Bell	
zard Rati	.ng		×	10. Of	Hoties						
O MOITIGM)F:										••
Vert. A Vert. A Horiz. Surface	Alignm Align e Crac	ment :ks					Ruts Po				
Trees Eurrow Other,	on	etc.							nstrezm		
 Princi Emerge 			_	(P				of Tu	_		
7. Plung			- -				rAt	weir	_Eelow \	veir	
9. Toe		Mover Boil:									
10. Seep	age		total	L est.	amount	t sketcl	ı on back				
ll. Reco											
	mmend	ation	.s				•				

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AJB-DS 235- VAN BURE PERMIT NO. 235 COUNTY CRAWFORD DATE 4-29-8/ CONTACT Ronnie Keener 1. Hazard Rating (Visual observation of homes in flood plain) NO. Putting in the outlet Pipe & pouring Riser Box J pond area is cleared of area for Joke ent OK NEEDS REPAIR Condition of Dam Vert. Alignment NEEDS REPAIR Horiz. Alignment YES Surface Cracks 3. Condition of Abut. Left Abut. (Upstream) The crade for the outlet Boy is almost Left Abut. (Downstream) Complete + forms are ready to pour Right Abut. (Upstream) Right Abut. (Downstream) 4. Condition of Upstream Embankment Construction Erosion Salis la tarily Trees Burrows Other 5. Condition of Downstream Embankment______ ____Erosion_____ Trees Burrows Other 6. Condition of Principal Spillway Condition of Emergency Spillway Normal Clear Murky 8. Condition of Water ____At Weir 9. Water Level Flowing over weir 10. Condition of Toe (noticeable movement) Boils (estimated amount) ____Yes 11. Seepage Amount (est. Saturated Area 12. Shore Line ____Steep ___Moderate ___Gontle 13. Condition of Plunge Basin and Channel 14. Recommendations

VAN BUREN COUNTY CRAWFORD DATE 8-20-8/ CONTACT_ 1. Hazard Rating (Visual observation of homes in flood plain) NO. Construction inspection 2. Condition of Dam Vert. Alignment NEEDS REPAIR OK Horiz, Alignment YES . Surface Cracks OK 3. Condition of Abut. Left Abut. (Upstream) liser wash Left Abut. (Downstream) Red plat Right Abut. (Upstream) Right Abut. (Downstream) 4. Condition of Upstream Embankment Struct Erosion Cutflow Conered Burrows Other 5. Condition of Downstream Embankment Erosion Trees Burrows Other 6. Condition of Principal Spillway 7. Condition of Emergency Spillway Normal Murky Clear 8. Condition of Water At Weir Low 9. Water Level Flowing over weir 10. Condition of Toe (noticeable movement) Boils (estimated amount) ll. Seepage (est. Saturated Area Gentle Moderate Steep 12. Shore Line 13. Condition of Plunge Basin and Channel Recommendations Construction progressing satisfactory

INSPECTOR D.P. Goodwin	LAKE NAME Van Busen, City of
PERMIT NO. 235 COUNTY CRAWFORD	· / /
Hazard Rating NO. Of Homes CONDITION OF: Rockfill So	em - Completed
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3. Abutments	
4. Embankments Upstream Erosion Trees Burrows Other, veg. etc.	Downstream O
5. Principal Spillway	Le Riser
6. Emergency Spillway	21
7. Plunge Basin, Channel	, , , , , , , , , , , , , , , , , , ,
8. Water LevelFlowing over	weir At weir Below weir Apke is still felling
9. Toe Movement Boils	
10. Seepagetotal est. amountsaturated area, (ske	etch on back)
11. Recommendations	

Mayor Municipal Complex Van Bunen, 72956

INS	PECTOR	tore	LAKE NAME City of Van Dunger						
PER	MIT NO. 23		E 2-9-84 CONTACT						
Haz	ard Rating	NO. Of Homes							
CONI	DITION OF:								
	Dam Vert. Alignme Horiz. Alignme Surface Crack Abutments	ks None	2. Crest Erosion Ruts Potholes Trees, Brush						
4.	Erosion Trees Burrows	Upstream Nowe Nowe Nowe etc. Amore	nout						
5.	Principal Sp	illway OK-	most flood varied through						
6.	Emergency Sp	illway							
7.	Plunge Basin	, Channel							
8.	Water Level	Flowing over weir	At weirBelow weir						
9.		vement \\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	blene						
LO.	Seepagetotal est. amountsaturated area, (sketch on back)								
l1.	Recommendation	ons							

INSPECTOR Cre	LAKE NAME Van Buren
PERMIT NO. 235 COUNTY Crawfore DAY	TE 11-17-89 CONTACT
Hazard RatingNO. Of Homes	
CONDITION OF:	
1. Dam Vert. Alignment Horiz. Alignment Surface Cracks Nove noted	2. Crest No problem Erosion Pour problem Ruts Potholes None Trees, Brush None
3. Abutments OK he problems	- water
4. Embankments Upstream Erosion he problems wated Trees Burrows Other, veg. etc.	
5. Principal Spillway	
6. Emergency Spillway appeared C	DK .
7. Plunge Basin, Channel	
8. Water LevelFlowing over wei	r At weir Below weir
9. Toe Movement wo provide	
10. Seepage total est. amount saturated area, (sketch	n on back)
11. Recommendations No problem	a noted continue good
maitenance	
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SPECTOR	RMF	74 E	ZELL	<u></u>		LAKE NAME	CAP BE	DELL	
						E 6-28-90			BELL
zard Rati	.ng		N	o. of H	ioties				
O MOITIGM)F:								٠.
Vert. A Vert. A Horiz. Surface	Aligne Align e Crac	ment :ks				Ruts Poi	inoles		
Trees Eurrow Other,	onvs, veg.	etc.			1			nstrezm	
 Princi Energe 			-	(M		DAYS C			
7. Plung						eirAt	weir	_Below w	eir
9. Toe		Movem Eoils	-						
10. Seep	age	t	total satur	est. a ated ar	emount sea, s ket	cch on back)			
ll. Reco									
	mmend	ation:	s						

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ENGINEERS INSPECTION REPORT
ARKANSAS NATURAL RESOURCES COMMISSION - DAM SAFETY BRANCH
101 E. CAPITOL AVENUE, #350, LITTLE ROCK, AR 72201 (501) 682-3986

	NAME HILLCREST LAKE DAM PERMIT #431 DATE OF INSPECTION 4/17/2018				_
	ID AR00903 DATE OF LAST INSPECTION 3/2/2017 ER NAME JAMES RALPH OWNER PHONE 479.234.2461 (OWNER UN-REACHAE	LE)			-
	RESS_745 POLK 76 EAST MENA, AR ZIP 71953				_
CLAS CURF	FACT NAME JAMES RALPH CONTACT PHONE SAME S.H. CAPACITY 57 AF SURFACE AREA 11 AC HEIGHT 25.7 FT CREST LENGTH 532 FT CREST V RENT RESTRICTION (NO) (YES) LEVEL EAP ON FILE (NO) (YES) ECTION PARTY REPRESENTING WALT MACPHEE, ANDC	VIDTH	l <u>-</u>	F	_ T
	DIRECTIONS: MARK AN X FOR CONDITIONS FOUND, GIVE LOCATION AND EXTENT WITH NUMBER REFERENCE FIELD CONDITIONS OBSERVED WATER LEVEL - BELOW DAM CREST FT BELOW SPILLWAY _FLOWING FT GAGE ROD GROUND MOISTURE CONDITION: DRY_X WET SNOWCOVER OTHER				
	PROBLEMS NOTED: □ (0) NONE ☑ (1) RIPRAP - MISSING, SPARSE, DISPLACED, WEATHERED ☑ (2) WAVE EROSION-WITH SCARPS □ (3) CRACKS WITH DISPLACEMENT □ (4) SINKHOLE ☑ (5) APPEARS TOO STEEP □ (6) DEPRESSIONS OR BULGES □ (7) SLIDES □ (8) CONCRETE FACING-HOLES, CRACKS, DISPLACED, UNDERMINED □ (9) OTHER □ COMMENTS: NO RIP-RAP; COVERED IN EXCESS VEGETATION; SLOPE TOO STEEP; WAVE EROSION	UPSTREAM SLOPE	O 0005	ACCEPTABLE	Poor
	PROBLEMS NOTED: ☑ (10) NONE ☐ (11) RUTS OR PUDDLES ☐ (12) EROSION ☐ (13) CRACKS - WITH DISPLACEMENT ☐ (14) SINKHOLES☐ (15) NOT WIDE ENOUGH☐ (16) LOW AREA☐ (17) MISALIGNMENT☐ (18) INADEQUATE SURFACE DRAINAGE☐ (19) OTHER☐ (CREST	0000	ACCEPTABLE	Poor
-					
KEAIM	PROBLEMS NOTED: ☐ (20) NONE ☐ (21) LIVESTOCK DAMAGE ☐ (22) EROSION OR GULLIES ☐ (23) CRACKS - WITH DISPLACEMENT ☐ (24) SINKHOLE ☐ (25) APPEARS TOO STEEP ☐ (26) DEPRESSION OR BULGES ☐ (27) SLIDE ☐ (28) SOFT AREAS ☐ (29) OTHER	DOWNSTREAM SLOPE) goob	ACCEPTABLE	POOR
PAGE D D	ROBLEMS NOTED: (30) NONE (31) SATURATED EMBANKMENT AREA (32) SEEPAGE EXITS ON EMBANKMENT (33) SEEPAGE EXITS AT POINT SOURCE (34) SEEPAGE AREA AT TOE (35) FLOW ADJACENT TO OUTLET (36) SEEPAGE INCREASED/MUDDI (38) DRAIN DRY/OBSTRUCTED (39) OTHER (OMMENTS: DENSE VEGETATION OBSCURED GOOD VISUAL OBSERVATION	SEPAGE AC		ACCEPTABLE	Poor
			$\overline{\mathbb{O}}$	•	\bigcirc
	ROBLEMS NOTED: (40) NONE (41) NO OUTLET FOUND (42) POOR OPERATING ACCESS (43) INOPERABLE (44) UPSTREAM OR DOWNSTREAM STRUCTURE DETERIORATED (45) OUTLET OPERATED DURING INSPECTION NO YES NTERIOR INSPECTED (120) NO (121) YES (46) CONDUIT DETERIORATED OR COLLAPSED (47) JOINTS DISPLACED (48) VALVE LEAKAGE DRAIN OUTFALLS SEEN NO YES (49) OTHER OMMENTS: CAUSEWAY ROAD IS BUILT ON IS INTENDED TO ALLOW FREE FLOW OF WATER BETWEEN THE TWO POOLS, BUT THE DRAIN BETWEEN THE TWO PONDS HAS BEEN PLUGGED WITH A METAL PLATE; SOME WATER STILL PASSES THROUGH	OUTLET	0005	ACCEPTABLE (POOR
	The state of the s			•	\bigcirc
	PROBLEMS NOTED: ☐ (50) NONE ☐ (51) NO EMERGENCY SPILLWAY FOUND ☐ (52) EROSION WITH BACKCUTTING ☐ (53) CRACK - WITH DISPLACEMENT ☐ (54) APPEARS TO BE STRUCTURALLY INADEQUATE ☐ (55) APPEARS TOO SMALL ☐ (56) INADEQUATE FREEBOARD ☐ (57) FLOW OBSTRUCTED ☐ (58) CONCRETE DETERIORATED/UNDERMINED ☐ (59) OTHER ☐ (59) OTHER ☐ (59) COMMENTS: SPILLWAY IS JUST LOW SPOT AND WOODS	SPILLWAY) aoob	ACCEPTABLE (POOR

INSPECTED BY

Λ	D	#.	AR00903
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DATE 4/17/2018

	STURMENTATION FOUND: ☑ (110) NONE ☐ (111) GAGE ROD ☐ (112) PIEZOMETERS ☐ (113) SEEPAGE WEIRS/F/EY MONUMENTS ☐ (115) OTHER		
MONITORING	© OF INSTRUMENTATION: (116) NO (117) YES PERIODIC INSPECTIONS BY: (118) OWNER (119) ENGING NO INSTRUMENTATIONS	MONITORING 600D	ACCEPTABLE
	IOTED: □ (60) NONE □ (61) ACCESS ROAD NEEDS MAINTENANCE □ (62) CATTLE DAMAGE H ON UPSTREAM SLOPE, CREST, DOWNSTREAM, TOE □ (64) TREES ON UPSTREAM SLOPE, CREST, DOWNSTREAM NT ACTIVITY ON UPSTREAM SLOPE, CREST, DOWNSTREAM, SLOPE, TOE □ (66) DETERIORATED CONCRETE-FACIN		
☑ (67) GATE 8 COMMENTS:_	& OPERATING MECHANISM NEED MAINTENANCE	IG, OUTLET, SPILLWAY WAINTENANGE GOOD GOOD	ACCEPTABL
REMARKS: <u>C</u>	SANNOT REACH DAM OWNER. NO EAP. NO REGULAR INSPECTIONS OR MAINTENANCE; WORKING ON CONSENT ORDER	=-	
	Safety Inspection and recent file review, the overall condition is determined to be: FACTORY □ (72) CONDITIONALLY SATISFACTORY □ (73) UNSATISFACTORY	OVERALL CONDITIONS GOOD	ACCEPTABL
The State Engineer by providing this dam safety inspection report, does not assume responsibility for any unsafe condition of the subject dam. The sole responsibility for the safety of this dam rests with the reservior owner or operator, who should take every step necessary to prevent damages caused by leakage or overflow of waters from the reservoir or floods resulting from a failure of the dam.	□ (80) PROVIDE ADDITIONAL RIPRAP: □ (81) LUBRICATE & OPERATE OUTLET GATES THROUGH FULL CYCLE: □ (82) CLEAR TREES AND/OR BRUSH FROM: ENTIRE DAM □ (83) INITIATE RODENT CONTROL PROGRAM & PROPERLY BACKFILL EXISTING HOLES: □ (84) GRADE CREST TO A UNIFORM ELEVATION WITH DRAINAGE TO THE UPSTREAM SLOPE: □ (85) PROVIDE SURFACE DRAINAGE FOR: □ (86) MONITOR: SEEPAGE AT TOE □ (87) DEVELOP AND SUBMIT AN EMERGENCY ACTION PLAN: □ (88) OTHER: □ (89) OTHER: □ (89) OTHER: □ (89) OTHER: □ (90) PREPARE PLANS & SPECIFICATIONS FOR THE REHABILITATION OF THE DAM: □ (91) PREPARE AS-BUILT DRAWINGS OF: □ (92) PERFORM A GEOTECHNICAL INVESTIGATION TO EVALUATE THE STABILITY OF THE DAM: □ (93) PERFORM A HYDROLOGIC STUDY TO DETERMINE REQUIRED SPILLWAY SIZE: □ (94) PREPARE PLANS & SPECIFICATIONS FOR AN ADEQUATE SPILLWAY: □ (95) SET UP A MONITORING SYSTEM INCLUDING WORK SHEETS, REDUCED DATA & GRAPHED RESULTS: □ (96) PERFORM AN INTERNAL INSPECTION OF THE OUTLET: □ (97) OTHER: □ (98) OTHER: □ (99) OTHER:		
	☐ (101) FULL STORAGE RESTRICTED LEVEL FT BELOW DAMS FT BELOW SPILLY OFFICIAL ORDER TO FOLLOW FT GAGE HEIGHT	WAY CREST	
	ESTRICTION: IRED FOR CONDITIONAL FULL STORAGE OR CONTINUED STORAGE AT THE RESTRICTED LEVEL:		
Engineer's Signature	Owner's Signature	DATE: 4/17/2018	

OWNER/OWNER'S REPRESENTATIVE

GUIDELINES FOR DETERMINING CONDITIONS

CONDITIONS OBSERVED - APPLIES TO UPSTEAM SLOPE, CREST, DOWNSTREAM SLOPE, OUTLET, SPILLWAY

GOOD

In general, this part of the structure has a near new appearance, and conditions observed in this are do not appear to threaten the safety of the dam.

ACCEPTABLE

Although general cross-section is maintained, surfaces may be irregular, eroded, rutted, spalled, or otherwise not in new condition. Conditions in this area do not currently appear to threaten the safety of the dam.

POOR

Conditions observed in this area appear to threaten the safety of the dam.

CONDITIONS OBSERVED - APPLIES TO SEEPAGE

GOOD

No evidence of uncontrolled seepage. No unexplained increase in flows from designed drains. All seepage is clear. Seepage conditions do not appear to threaten the safety of the dam.

ACCEPTABLE

Some seepage exists at areas other than the drain outfalls, or other designed drains. No unexplained increase in seepage. All seepage is clear. Seepage conditions observed do not currently appear to threaten the safety of the dam

POOR

Seepage conditions observed appear to threaten the safety of the dam. Examples:

- 1) Designed drain or seepage flows have increased without increase in reservior level.
- 2) Drain or seepage flows contain sediment,
- i.e., muddy water or particles in jar samples.
- 3) Widespread seepage, concentrated seepage or ponding appears to threaten the safety of the dam.

CONDITIONS OBSERVED - APPLIES TO MONITORING

GOOD

Instrumentation and monitoring described under acceptable are being exceeded, as described under comments in the report.

ACCEPTABLE

Instrumentation is provided in accordance with the rules. Special instrumentation and monitoring deemed necessary is provided. The owner monitors the dam and records data in accordance with the rules, and submits the data annually or more frequently if required.

POOR

Required instrumentation and monitoring are not provided or required periodic readings are not being made or unexplained changes in readings are not reacted to by the owner.

CONDITIONS OBSERVED - APPLIES TO MAINTENANCE AND REPAIR

GOOD

Owner has a plan for annual maintenance. Dam consistently receives effective on-going maintenance and repair.

ACCEPTABLE

Dam receives maintenance in accordance with a plan, but some maintenance items need to be addressed. No major repairs are required.

POOR

No annual maintenance plan in effect. Dan does not appear to receive adequate maintenance. One or more items needing maintenance or repair have begun to threaten the safety of the dam. Lack of maintenance prevents thorough inspection.

OVERALL CONDITIONS

SATISFACTORY

The safety inspection indicates no conditions that appear to threaten the safety of the dam and the dam is expected to perform satisfactorily under all design loading conditions.

CONDITIONALLY SATISFACTORY

The safety inspection indicates symptoms of structural distress (excessive seepage, evidence of major displacements, etc.) which if conditions worsen, could lead to the failure of the dam. Essential monitoring, inspection and maintenance must be performed as a requirement for conditinued full storage in the reservoir or storage at a reduced level. There are no requirements if maintained at the restricted level.

UNSATISFACTORY

No annual maintenance plan in effect. Dan does not appear to receive adequate maintenance. One or more items needing maintenance or repair have begun to threaten the safety of the dam. Lack of maintenance prevents thorough inspection.

SAFE STORAGE LEVEL

FULL STORAGE

Dam may be used to full capacity with no conditions attached.

CONDITIONAL FULL STORAGE

Dam may be used to full storage if certain monitoring, maintenance or operational conditions are met.

RESTRICTION

Dam may no be used to full capacity, but must be operated at some reduced level in the interest of public safety.

CLASSIFICATION OF DAMS

- CLASS 1 Loss of human life is expected in the event of failure of the dam.
- CLASS 2 Significant damage is expected in the event of failure of the dam, but no loss of human life is expected.
- CLASS 3-A small amount of damage is expected. Loss of human life and significant damage are not expected.
- CLASS 4 No loss of human is expected and damage will occur only to the dam owner's property.

	NAME_HILLCREST LAKE DAM PERMIT #431 DATE OF INSPECTION 4/17/2018				_
	ID AR00903 DATE OF LAST INSPECTION 3/2/2017 ER NAME JAMES RALPH OWNER PHONE 479,234.2461 (OWNER UN-REACHA	BLE)			-
	RESS 745 POLK 76 EAST MENA, AR ZIP 71953				_
CLAS CURF	ACT NAME JAMES RALPH CONTACT PHONE SAME S.H. CAPACITY 57 AF SURFACE AREA 11 AC HEIGHT 25.7 FT CREST LENGTH 532 FT CREST RENT RESTRICTION (NO) (VES) LEVEL EAP ON FILE (NO) (VES) ECTION PARTY REPRESENTING WALT MACPHEE, ANDC	WIDTH	1	F	T -
	DIRECTIONS: MARK AN X FOR CONDITIONS FOUND, GIVE LOCATION AND EXTENT WITH NUMBER REFERENCE FIELD CONDITIONS OBSERVED WATER LEVEL - BELOW DAM CREST FT BELOW SPILLWAY _FLOWING FT GAGE ROD GROUND MOISTURE CONDITION: DRY WET SNOWCOVER OTHER				
SLOPE	PROBLEMS NOTED: ☐ (0) NONE ☑ (1) RIPRAP - MISSING, SPARSE, DISPLACED, WEATHERED ☑ (2) WAVE EROSION-WITH SCARPS ☐ (3) CRACKS WITH DISPLACEMENT ☐ (4) SINKHOLE ☑ (5) APPEARS TOO STEEP ☐ (6) DEPRESSIONS OR BULGES ☐ (7) SLIDES ☐ (8) CONCRETE FACING-HOLES, CRACKS, DISPLACED, UNDERMINED ☐ (9) OTHER ☐ COMMENTS: NO RIP-RAP; COVERED IN EXCESS VEGETATION; SLOPE TOO STEEP; WAVE EROSION	IPSTREAM SLOPE	Q000	ACCEPTABLE	Poor
	PROBLEMS NOTED: (10) NONE (11) RUTS OR PUDDLES (12) EROSION (13) CRACKS - WITH DISPLACEMENT (14) SINKHOLES (15) NOT WIDE ENOUGH (16) LOW AREA (17) MISALIGNMENT (18) INADEQUATE SURFACE DRAINAGE (19) OTHER COMMENTS: VEGETATION	CREST	0	ACCEPTABLE (Poor
AM SLOPE	PROBLEMS NOTED: □ (20) NONE □ (21) LIVESTOCK DAMAGE ☑ (22) EROSION OR GULLIES □ (23) CRACKS - WITH DISPLACEMENT □ (24) SINKHOLE ☑ (25) APPEARS TOO STEEP □ (26) DEPRESSION OR BULGES □ (27) SLIDE □ (28) SOFT AREAS	DOWNSTREAM SLOPE	G000	ACCEPTABLE • A	Poor
	□ (29) OTHERCOMMENTS; SLOPE TOO STEEP; COVERED IN DENSE VEGATION	SNMOO	§ <u>O</u>	ACCEF	
	ROBLEMS NOTED: (30) NONE (31) SATURATED EMBANKMENT AREA (32) SEEPAGE EXITS ON EMBANKMENT 1 (33) SEEPAGE EXITS AT POINT SOURCE (34) SEEPAGE AREA AT TOE (35) FLOW ADJACENT TO OUTLET (36) SEEPAGE INCREASED/MUD RAIN OUTFALLS SEEN (NO VYES (37) FLOW INCREASED/MUDDY (38) DRAIN DRY/OBSTRUCTED 1 (39) OTHER OMMENTS: DENSE VEGETATION OBSCURED GOOD VISUAL OBSERVATION	DY SEFPAGE		ACCEPTABLE	POOR
	ROBLEMS NOTED: (40) NONE (41) NO OUTLET FOUND (42) POOR OPERATING ACCESS (43) INOPERABLE (44) UPSTREAM OR DOWNSTREAM STRUCTURE DETERIORATED (45) OUTLET OPERATED DURING INSPECTION NO YES ITERIOR INSPECTED (120) NO (121) YES (46) CONDUIT DETERIORATED OR COLLAPSED (47) JOINTS DISPLACED (48) VALVE LEAKAGE DRAIN OUTFALLS SEEN NO YES (49) OTHER OMMENTS: CAUSEWAY ROAD IS BUILT ON IS INTENDED TO ALLOW FREE FLOW OF WATER BETWEEN THE TWO POOLS, BUT THE DRAIN BETWEEN THE TWO PONDS HAS BEEN PLUGGED WITH A METAL PLATE; SOME WATER STILL PASSES THROUGH	THILL	G000	ACCEPTABLE	Poor
			$\overline{\mathbb{O}}$	•	$\overline{\mathbb{C}}$
	ROBLEMS NOTED:	YAW LIIGS) 0005	ACCEPTABLE (POOR

INSPECTED BY

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DATE 4/17/2018

	STURMENTATION FOUND: ☑ (110) NONE ☐ (111) GAGE ROD ☐ (112) PIEZOMETERS ☐ (113) SEEPAGE WEIRS/F		
MONITORING	OF INSTRUMENTATION: ☐ (116) NO ☐ (117) YES PERIODIC INSPECTIONS BY: ☐ (118) OWNER ☐ (119) ENGIND MONITORING; NO INSTRUMENTATIONS	MONITORING 600D	ACCEPTABLE
	IOTED: □ (60) NONE □ (61) ACCESS ROAD NEEDS MAINTENANCE □ (62) CATTLE DAMAGE H ON UPSTREAM SLOPE, CREST, DOWNSTREAM, TOE □ (64) TREES ON UPSTREAM SLOPE, CREST, DOWNSTREAM NT ACTIVITY ON UPSTREAM SLOPE, CREST, DOWNSTREAM, SLOPE, TOE □ (66) DETERIORATED CONCRETE-FACIN		
☑ (67) GATE 8 COMMENTS:_	& OPERATING MECHANISM NEED MAINTENANCE	IG, OUTLET, SPILLWAY WAINTENANGE GOOD GOOD	ACCEPTABL
REMARKS: <u>C</u>	SANNOT REACH DAM OWNER. NO EAP. NO REGULAR INSPECTIONS OR MAINTENANCE; WORKING ON CONSENT ORDER	=-	
	Safety Inspection and recent file review, the overall condition is determined to be: FACTORY □ (72) CONDITIONALLY SATISFACTORY □ (73) UNSATISFACTORY	OVERALL CONDITIONS GOOD	ACCEPTABL
The State Engineer by providing this dam safety inspection report, does not assume responsibility for any unsafe condition of the subject dam. The sole responsibility for the safety of this dam rests with the reservior owner or operator, who should take every step necessary to prevent damages caused by leakage or overflow of waters from the reservoir or floods resulting from a failure of the dam.	□ (80) PROVIDE ADDITIONAL RIPRAP: □ (81) LUBRICATE & OPERATE OUTLET GATES THROUGH FULL CYCLE: □ (82) CLEAR TREES AND/OR BRUSH FROM: ENTIRE DAM □ (83) INITIATE RODENT CONTROL PROGRAM & PROPERLY BACKFILL EXISTING HOLES: □ (84) GRADE CREST TO A UNIFORM ELEVATION WITH DRAINAGE TO THE UPSTREAM SLOPE: □ (85) PROVIDE SURFACE DRAINAGE FOR: □ (86) MONITOR: SEEPAGE AT TOE □ (87) DEVELOP AND SUBMIT AN EMERGENCY ACTION PLAN: □ (88) OTHER: □ (89) OTHER: □ (89) OTHER: □ (89) OTHER: □ (90) PREPARE PLANS & SPECIFICATIONS FOR THE REHABILITATION OF THE DAM: □ (91) PREPARE AS-BUILT DRAWINGS OF: □ (92) PERFORM A GEOTECHNICAL INVESTIGATION TO EVALUATE THE STABILITY OF THE DAM: □ (93) PERPORM A HYDROLOGIC STUDY TO DETERMINE REQUIRED SPILLWAY SIZE: □ (94) PREPARE PLANS & SPECIFICATIONS FOR AN ADEQUATE SPILLWAY: □ (95) SET UP A MONITORING SYSTEM INCLUDING WORK SHEETS, REDUCED DATA & GRAPHED RESULTS: □ (96) PERFORM AN INTERNAL INSPECTION OF THE OUTLET: □ (97) OTHER: □ (98) OTHER: □ (99) OTHER:		
	☐ (101) FULL STORAGE RESTRICTED LEVEL FT BELOW DAMS FT BELOW SPILLY OFFICIAL ORDER TO FOLLOW FT GAGE HEIGHT	WAY CREST	
	ESTRICTION: IRED FOR CONDITIONAL FULL STORAGE OR CONTINUED STORAGE AT THE RESTRICTED LEVEL:		
Engineer's Signature	Owner's Signature	DATE: 4/17/2018	

OWNER/OWNER'S REPRESENTATIVE

CONDITIONS OBSERVED - APPLIES TO UPSTEAM SLOPE, CREST, DOWNSTREAM SLOPE, OUTLET, SPILLWAY

GOOD

In general, this part of the structure has a near new appearance, and conditions observed in this are do not appear to threaten the safety of the dam.

ACCEPTABLE

Although general cross-section is maintained, surfaces may be irregular, eroded, rutted, spalled, or otherwise not in new condition. Conditions in this area do not currently appear to threaten the safety of the dam.

POOR

Conditions observed in this area appear to threaten the safety of the dam.

CONDITIONS OBSERVED - APPLIES TO SEEPAGE

GOOD

No evidence of uncontrolled seepage. No unexplained increase in flows from designed drains. All seepage is clear. Seepage conditions do not appear to threaten the safety of the dam.

ACCEPTABLE

Some seepage exists at areas other than the drain outfalls, or other designed drains. No unexplained increase in seepage. All seepage is clear. Seepage conditions observed do not currently appear to threaten the safety of the dam

POOR

Seepage conditions observed appear to threaten the safety of the dam. Examples:

- 1) Designed drain or seepage flows have increased without increase in reservior level.
- 2) Drain or seepage flows contain sediment,
- i.e., muddy water or particles in jar samples.
- 3) Widespread seepage, concentrated seepage or ponding appears to threaten the safety of the dam.

CONDITIONS OBSERVED - APPLIES TO MONITORING

GOOD

Instrumentation and monitoring described under acceptable are being exceeded, as described under comments in the report.

ACCEPTABLE

Instrumentation is provided in accordance with the rules. Special instrumentation and monitoring deemed necessary is provided. The owner monitors the dam and records data in accordance with the rules, and submits the data annually or more frequently if required.

POOR

Required instrumentation and monitoring are not provided or required periodic readings are not being made or unexplained changes in readings are not reacted to by the owner.

CONDITIONS OBSERVED - APPLIES TO MAINTENANCE AND REPAIR

GOOD

Owner has a plan for annual maintenance. Dam consistently receives effective on-going maintenance and repair.

ACCEPTABLE

Dam receives maintenance in accordance with a plan, but some maintenance items need to be addressed. No major repairs are required.

POOR

No annual maintenance plan in effect. Dan does not appear to receive adequate maintenance. One or more items needing maintenance or repair have begun to threaten the safety of the dam. Lack of maintenance prevents thorough inspection.

OVERALL CONDITIONS

SATISFACTORY

The safety inspection indicates no conditions that appear to threaten the safety of the dam and the dam is expected to perform satisfactorily under all design loading conditions.

CONDITIONALLY SATISFACTORY

The safety inspection indicates symptoms of structural distress (excessive seepage, evidence of major displacements, etc.) which if conditions worsen, could lead to the failure of the dam. Essential monitoring, inspection and maintenance must be performed as a requirement for conditinued full storage in the reservoir or storage at a reduced level. There are no requirements if maintained at the restricted level.

UNSATISFACTORY

No annual maintenance plan in effect. Dan does not appear to receive adequate maintenance. One or more items needing maintenance or repair have begun to threaten the safety of the dam. Lack of maintenance prevents thorough inspection.

SAFE STORAGE LEVEL

FULL STORAGE

Dam may be used to full capacity with no conditions attached.

CONDITIONAL FULL STORAGE

Dam may be used to full storage if certain monitoring, maintenance or operational conditions are met.

RESTRICTION

Dam may no be used to full capacity, but must be operated at some reduced level in the interest of public safety.

- CLASS 1 Loss of human life is expected in the event of failure of the dam.
- CLASS 2 Significant damage is expected in the event of failure of the dam, but no loss of human life is expected.
- CLASS 3-A small amount of damage is expected. Loss of human life and significant damage are not expected.
- CLASS 4 No loss of human is expected and damage will occur only to the dam owner's property.

DAM NAME James Fork Dam & Reservoir Permit #346 DATE OF INSPECTION DAM ID AR01506 DATE OF LAST INSPECTION				_
OWNER NAME James Fork Regional Water District ADDRESS P.O. Box 1180, Greenwood, AR CONTACT NAME Jeff CAPACITY 4752 AF SURFACE AREA 212 AC HEIGHT 81 FT CREST LENGTH 2070 FT CURRENT RESTRICTION (NO) (YES) LEVEL EAP ON FILE (NO) (YES) INSPECTION PARTY REPRESENTING NRD	ZIP_72936	TH_24	F	- - - - - - -
DIRECTIONS: MARK AN X FOR CONDITIONS FOUND, GIVE LOCATION AND EXTENT WITH NUMBER REI FIELD CONDITIONS OBSERVED WATER LEVEL - BELOW DAM CREST 16 FT BELOW SPILLWAY 1.5 FT GAGE ROD Pic GROUND MOISTURE CONDITION: DRY X WET SNOWCOVER OTHER				
PROBLEMS NOTED:	} 	UPSTREAM SLOPE GOOD	ACCEPTABLE	Poor
PROBLEMS NOTED: (10) NONE (11) RUTS OR PUDDLES (12) EROSION (13) CRACKS - WITH DISPLACEMENT (14) SII (15) NOT WIDE ENOUGH (16) LOW AREA (17) MISALIGNMENT (18) INADEQUATE SURFACE DRAINAGE (19) OTHER COMMENTS: Ruts and missing grass cover.	NKHOLES	CREST GOOD	ACCEPTABLE	Poor
PROBLEMS NOTED: (20) NONE (21) LIVESTOCK DAMAGE (22) EROSION OR GULLIES (23) CRACKS - WITH DISPLACEMENT (24) SINKHOLE (25) APPEARS TOO STEEP (26) DEPRESSION OR BULGES (27) SLIDE (28) SOFT AREAS (29) OTHER Woody vegetation. COMMENTS: Brush covering the entire downstream slope; Bar spot on right abutment with minor erosion;	NT 	DOWNSTREAM SLOPE GOOD	ACCEPTABLE	Poor
<u> </u>			0	O
PROBLEMS NOTED: (30) NONE (31) SATURATED EMBANKMENT AREA (32) SEEPAGE EXITS ON EMBANKMENT (33) SEEPAGE EXITS AT POINT SOURCE (34) SEEPAGE AREA AT TOE (35) FLOW ADJACENT TO OUTLET (36) SEEPAGE INCRE DRAIN OUTFALLS SEEN (37) FLOW INCREASED/MUDDY (38) DRAIN DRY/OBSTRUCTED (39) OTHER COMMENTS: None observed.	EASED/MUDDY	SEEPAGE GOOD	ACCEPTABLE	POOR
PROBLEMS NOTED: (40) NONE (41) NO OUTLET FOUND (42) POOR OPERATING ACCESS (43) INOPERABLE (44) UPSTREAM OR DOWNSTREAM STRUCTURE DETERIORATED (45) OUTLET OPERATED DURING INSPECTION NO YES INTERIOR INSPECTED (120) NO (121) YES (46) CONDUIT DETERIORATED OR COLLAPSED (47) JOINTS DISPLACED (48) VALVE LEAKAGE DRAIN OUTFALLS SEEN NO YES (49) OTHER COMMENTS: Outlet leads to water treatment and was not observed.		OUTLET GOOD	ACCEPTABLE	Poor
PROBLEMS NOTED: ☑ (50) NONE ☐ (51) NO EMERGENCY SPILLWAY FOUND ☐ (52) EROSION WITH BACKCUTTING ☐ (53) CRACK - WITH DISPLACEMENT ☐ (54) APPEARS TO BE STRUCTURALLY INADEQUATE ☐ (55) APPEARS TOO SMALL ☐ (56) INADEQUATE FREEBOARD ☐ (57) FLOW OBSTRUCTED ☑ (58) CONCRETE DETERIORATED/UNDERMINED ☐ (59) OTHER ☐ (59) OTHER ☐ COMMENTS:		SPILLWAY GOOD	ACCEPTABLE	Poor

INSPECTED BY

MECHINOM	MONITORIN
INTENANCE	& REPAIR

☐ (114) SURV MONITORING	TURMENTATION FOUND: (110) NONE (111) GAGE ROD (112) PIEZOMETERS (113) SEEPAGE WEIRS/FLUMES EY MONUMENTS (115) OTHER OF INSTRUMENTATION: (116) NO (117) YES PERIODIC INSPECTIONS BY: (118) OWNER (119) ENGINEER Vater supply lake so the levels are monitored.	GOOD	ACCEPTABLE
	ITACTIVITY ON UPSTREAM SLUPE, CREST, DUWNSTREAM, SLUPE, TUE 🔛 (00) DETERIORATED CONCRETE-FACING, OUTLET, SPILLWAY 🖪	MAINTENANCE & REPAIR	ACCEPTABLE
	ice the brush is removed, ANRC can conduct a more detailed inspection.	SNO	
	Safety Inspection and recent file review, the overall condition is determined to be: ACTORY (72) CONDITIONALLY SATISFACTORY (73) UNSATISFACTORY	OVERALL CONDITIONS	ACCEPTABLE
The State Engineer by providing this dam safety inspection report, does not assume responsibility for any unsafe condition of the subject dam. The sole responsibility for the safety of this dam rests with the reservior owner or operator, who should take every step necessary to prevent damages caused by leakage or overflow of waters from the reservoir or floods resulting from a failure of the dam.	MAINTENANCE - MINOR REPAIR - MONITORING (B0) PROVIDE ADDITIONAL RIPRAP: (B1) LUBRICATE & OPERATE OUTLET GATES THROUGH FULL CYCLE: (B2) CLEAR TREES AND/OR BRUSH FROM: Brush on both slopes. (B3) INITIATE RODENT CONTROL PROGRAM & PROPERLY BACKFILL EXISTING HOLES: (B4) GRADE CREST TO A UNIFORM ELEVATION WITH DRAINAGE TO THE UPSTREAM SLOPE: (B5) PROVIDE SURFACE DRAINAGE FOR: (B6) MONITOR: (B7) DEVELOP AND SUBMIT AN EMERGENCY ACTION PLAN: (B8) OTHER: (B9) OTHER: ENGINEERING - EMPLOY AN ENGINEER EXPERIENCED IN DESIGN & CONSTRUCTION OF DAMS TO: (Plan & Specification must be approved by State Engineer prior to construction) (90) PREPARE PLANS & SPECIFICATIONS FOR THE REHABILITATION OF THE DAM: (91) PREPARE AS-BUILT DRAWINGS OF: (92) PERFORM A GEOTECHNICAL INVESTIGATION TO EVALUATE THE STABILITY OF THE DAM: (93) PERFORM A GEOTECHNICAL INVESTIGATION FOR AN ADEQUATE SPILLWAY SIZE: (94) PREPARE PLANS & SPECIFICATIONS FOR AN ADEQUATE SPILLWAY: (95) SET UP A MONITORING SYSTEM INCLUDING WORK SHEETS, REDUCED DATA & GRAPHED RESULTS: (96) PERFORM AN INTERNAL INSPECTION OF THE OUTLET: (97) OTHER: (99) OTHER:		
	SAFE STORAGE LEVEL RECOMMENDED AS A RESULT OF THIS INSPECTION [101] FULL STORAGE RESTRICTED LEVEL OFFICIAL ORDER TO FOLLOW [102] CONDITIONAL FULL STORAGE OFFICIAL ORDER TO FOLLOW OFFICIAL ORDER TO FOLLOW NO STORAGE-MAINTAIN OUTLET FULLY OF	PEN	
REASON FOR RE	STRICTION:		
ACTIONS REQUI	RED FOR CONDITIONAL FULL STORAGE OR CONTINUED STORAGE AT THE RESTRICTED LEVEL:		
Engineer's Signature	Owner's Signature DATE:		

OWNER/OWNER'S REPRESENTATIVE

CONDITIONS OBSERVED - APPLIES TO UPSTEAM SLOPE, CREST, DOWNSTREAM SLOPE, OUTLET, SPILLWAY

GOOD

In general, this part of the structure has a near new appearance, and conditions observed in this are do not appear to threaten the safety of the dam.

ACCEPTABLE

Although general cross-section is maintained, surfaces may be irregular, eroded, rutted, spalled, or otherwise not in new condition. Conditions in this area do not currently appear to threaten the safety of the dam.

POOR

Conditions observed in this area appear to threaten the safety of the dam.

CONDITIONS OBSERVED - APPLIES TO SEEPAGE

GOOD

No evidence of uncontrolled seepage. No unexplained increase in flows from designed drains. All seepage is clear. Seepage conditions do not appear to threaten the safety of the dam.

ACCEPTABLE

Some seepage exists at areas other than the drain outfalls, or other designed drains. No unexplained increase in seepage. All seepage is clear. Seepage conditions observed do not currently appear to threaten the safety of the dam

POOR

Seepage conditions observed appear to threaten the safety of the dam. Examples:

- 1) Designed drain or seepage flows have increased without increase in reservior level.
- 2) Drain or seepage flows contain sediment,
- i.e., muddy water or particles in jar samples.
- 3) Widespread seepage, concentrated seepage or ponding appears to threaten the safety of the dam.

CONDITIONS OBSERVED - APPLIES TO MONITORING

GOOD

Instrumentation and monitoring described under acceptable are being exceeded, as described under comments in the report.

ACCEPTABLE

Instrumentation is provided in accordance with the rules. Special instrumentation and monitoring deemed necessary is provided. The owner monitors the dam and records data in accordance with the rules, and submits the data annually or more frequently if required.

POOR

Required instrumentation and monitoring are not provided or required periodic readings are not being made or unexplained changes in readings are not reacted to by the owner.

CONDITIONS OBSERVED - APPLIES TO MAINTENANCE AND REPAIR

GOOD

Owner has a plan for annual maintenance. Dam consistently receives effective on-going maintenance and repair.

ACCEPTABLE

Dam receives maintenance in accordance with a plan, but some maintenance items need to be addressed. No major repairs are required.

POOR

No annual maintenance plan in effect. Dan does not appear to receive adequate maintenance. One or more items needing maintenance or repair have begun to threaten the safety of the dam. Lack of maintenance prevents thorough inspection.

OVERALL CONDITIONS

SATISFACTORY

The safety inspection indicates no conditions that appear to threaten the safety of the dam and the dam is expected to perform satisfactorily under all design loading conditions.

CONDITIONALLY SATISFACTORY

The safety inspection indicates symptoms of structural distress (excessive seepage, evidence of major displacements, etc.) which if conditions worsen, could lead to the failure of the dam. Essential monitoring, inspection and maintenance must be performed as a requirement for conditinued full storage in the reservoir or storage at a reduced level. There are no requirements if maintained at the restricted level.

UNSATISFACTORY

No annual maintenance plan in effect. Dan does not appear to receive adequate maintenance. One or more items needing maintenance or repair have begun to threaten the safety of the dam. Lack of maintenance prevents thorough inspection.

SAFE STORAGE LEVEL

FULL STORAGE

Dam may be used to full capacity with no conditions attached.

CONDITIONAL FULL STORAGE

Dam may be used to full storage if certain monitoring, maintenance or operational conditions are met.

RESTRICTION

Dam may no be used to full capacity, but must be operated at some reduced level in the interest of public safety.

- CLASS 1 Loss of human life is expected in the event of failure of the dam.
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- CLASS 4 No loss of human is expected and damage will occur only to the dam owner's property.

	NAME_LAKE AZTEC DAM PERMIT #130 DATE OF INSPECTION 12/13/2017 12/13/2017 1 ID AR00243 DATE OF LAST INSPECTION 4/19/2016 4/19/2016				_
IWO	NER NAME CHEROKEE VILLAGE POA OWNER PHONE 870.847.0471 ZIP 725 ZIP 725				_
CON CLA CUF	TRESS FO BOX 840 CHEROKEE VILLAGE ARE ITACT NAME DAVID WEBB SS H CAPACITY 870 AF SURFACE AREA 19 AC HEIGHT 65 FT CREST LENGTH 750 FT CREST RENT RESTRICTION (NO) (YES) LEVEL EAP ON FILE (NO) (YES) PECTION PARTY REPRESENTING WALT MACPHEE, ANRC; DAVID WEBB, CHEROKEE VILLAGE POA		H <u>-</u>	F	- न
	DIRECTIONS: MARK AN X FOR CONDITIONS FOUND, GIVE LOCATION AND EXTENT WITH NUMBER REFERENCE FIELD CONDITIONS OBSERVED WATER LEVEL - BELOW DAM CREST _~10	E -			
UPSTREAM SLOPE	PROBLEMS NOTED: ☐ (0) NONE ☑ (1) RIPRAP - MISSING, SPARSE, DISPLACED, WEATHERED ☐ (2) WAVE EROSION-WITH SCARPS ☐ (3) CRACKS WITH DISPLACEMENT ☐ (4) SINKHOLE ☐ (5) APPEARS TOO STEEP ☐ (6) DEPRESSIONS OR BULGES ☐ (7) SLIDES ☐ (8) CONCRETE FACING-HOLES, CRACKS, DISPLACED, UNDERMINED ☐ (9) OTHER COMMENTS:		GOOD GOOD	ACCEPTABLE	Poor
CRESI	PROBLEMS NOTED: ☑ (10) NONE ☐ (11) RUTS OR PUDDLES ☐ (12) EROSION ☐ (13) CRACKS - WITH DISPLACEMENT ☐ (14) SINKHOLES☐ (15) NOT WIDE ENOUGH ☐ (16) LOW AREA ☐ (17) MISALIGNMENT ☐ (18) INADEQUATE SURFACE DRAINAGE☐ (19) OTHERCOMMENTS:	-	GOOD GOOD	ACCEPTABLE	Poor
DOWNSTREAM SLOPE	PROBLEMS NOTED: ☐ (20) NONE ☐ (21) LIVESTOCK DAMAGE ☐ (22) EROSION OR GULLIES ☐ (23) CRACKS - WITH DISPLACEMENT☐ (24) SINKHOLE ☐ (25) APPEARS TOO STEEP ☐ (26) DEPRESSION OR BULGES ☐ (27) SLIDE ☐ (28) SOFT AREAS☐ (29) OTHER☐ (29) OTHER☐ (20) CRACKS - WITH DISPLACEMENT☐ (28) SOFT AREAS☐ (29) OTHER☐ (28) SOFT AREAS☐ (29) OTHER☐ (28) SOFT AREAS☐ (29) OTHER☐ (29) OTHER☐ (20) TREAT EXCESS VEGETATION/TREES FROM LOWER PORTION OF DOWNSTREAM SLOPE☐ (28) SOFT AREAS☐ (29) OTHER☐ (TOO IS MATERIALISM	GOOD GOOD	ACCEPTABLE	Poor
PAGE	PROBLEMS NOTED: ☐ (30) NONE ☐ (31) SATURATED EMBANKMENT AREA ☐ (32) SEEPAGE EXITS ON EMBANKMENT ☐ (33) SEEPAGE EXITS AT POINT SOURCE ☐ (34) SEEPAGE AREA AT TOE ☐ (35) FLOW ADJACENT TO OUTLET ☐ (36) SEEPAGE INCREASED/MLD DRAIN OUTFALLS SEEN ☐ NO ☑ YES ☐ (37) FLOW INCREASED/MUDDY ☐ (38) DRAIN DRY/OBSTRUCTED ☐ (39) OTHER COMMENTS: NO OBSERVABLE SEEPAGE		GOOD	ACCEPTABLE	Poor
<u>=</u>	PROBLEMS NOTED: (40) NONE (41) NO OUTLET FOUND (42) POOR OPERATING ACCESS (43) INOPERABLE (44) UPSTREAM OR DOWNSTREAM STRUCTURE DETERIORATED (45) OUTLET OPERATED DURING INSPECTION NO 1/2 YES INTERIOR INSPECTED (120) NO (121) YES (46) CONDUIT DETERIORATED OR COLLAPSED (47) JOINTS DISPLACED (48) VALVE LEAKAGE DRAIN OUTFALLS SEEN 1/2 NO 1/2 YES (49) OTHER COMMENTS: OUTLET WORKS OF PRINCIPAL SPILLWAY CONDUIT INUNDATED WITH WATER; RECOMMEND ESTABLISHING A CHANNEL FOR THE WATER TO PROPERLY DRAIN	E C	GOOD	ACCEPTABLE	POOR
LLWAY	PROBLEMS NOTED: ☐ (50) NONE ☐ (51) NO EMERGENCY SPILLWAY FOUND ☐ (52) EROSION WITH BACKCUTTING ☐ (53) CRACK - WITH DISPLACEMENT ☐ (54) APPEARS TO BE STRUCTURALLY INADEQUATE ☐ (55) APPEARS TOO SMALL ☐ (56) INADEQUATE FREEBOARD ☑ (57) FLOW OBSTRUCTED ☐ (58) CONCRETE DETERIORATED/UNDERMINED ☐ (59) OTHER COMMENTS: RECOMMEND CLEARING TREES GROWING IN AUXILIARY SPILLWAY OUTFLOW CHANNEL	NAME IN CO.	GOOD	ACCEPTABLE	Poor

INSPECTED BY

☐ (114) SU MONITORI COMMENT	URVEY MONU ING OF INSTF TS:	MENTS □ (115) OTHER RUMENTATION: □ (116) NO □ (117)	(111) GAGE ROD	☑ (118) OWNER	□ (119) ENGINEER	MONITORING	0000	ACCEPTABLE
□ (63) BR □ (65) RO □ (67) GA	USH ON UPS DENT ACTIVI TE & OPERAT	TREAM SLOPE, CREST, DOWNSTREAM TY ON UPSTREAM SLOPE, CREST, DOV	NEEDS MAINTENANCE	I SLOPE, CREST, D TERIORATED CON	CRETE-FACING, OUTLET, SPILLWAY	MAINTENANCE & REPAIR	0005	ACCEPTABLE
PORTION OF Based on t	this Safety Insp					OVERALL CONDITIONS	0000	ACCEPTABLE
roviding this dam safety inspection report, does not rany unsafe condition of the subject dam. The sole ety of this dam rests with the reservior owner or operaton processary to prevent damages caused by leake the necessary to prevent damages caused by leake the necessary to prevent damages.	Depth (80) (81) (81) (82) (83) (84) (84) (85) (85) (86) (86) (86) (86) (87) (87) (87) (87) (87) (87) (87) (87	ENANCE - MINOR REPAIR - MONITORIN PROVIDE ADDITIONAL RIPRAP: LUBRICATE & OPERATE OUTLET GATI CLEAR TREES AND/OR BRUSH FROM INITIATE RODENT CONTROL PROGRA GRADE CREST TO A UNIFORM ELEVA' PROVIDE SURFACE DRAINAGE FOR: YEARD OF THE CONTROL PREPARE PLANS & SPECIFICATIONS PREPARE AS-BUILT DRAWINGS OF: PERFORM A GEOTECHNICAL INVESTI PERFORM A HYDROLOGIC STUDY TO PREPARE PLANS & SPECIFICATIONS SET UP A MONITORING SYSTEM INCL PERFORM AN INTERNAL INSPECTION OTHER:	TES THROUGH FULL CYCLE: M: LOWER PORTION OF D/S SLOPE AM & PROPERLY BACKFILL EXISTING HATION WITH DRAINAGE TO THE UPSTRI WATER IN CHANNEL BELOW PRINCIPAL SPILLWA NCY ACTION PLAN: ERIENCED IN DESIGN & CONSTRUCTIC Engineer prior to construction) FOR THE REHABILITATION OF THE DA	HOLES: EAM SLOPE: EAY OUTLET WORKS ON OF DAMS TO: M: OF THE DAM: ZE: TA & GRAPHED RES	SULTS:			
REASON FOR	☑ (10	01) FULL STORAGE 02) CONDITIONAL FULL STORAGE 03) RECOMMENDED RESTRICTION —	RESTRICTED LEVEL OFFICIAL ORDER TO FOLLOW	FT B FT B FT G NO S	ON BELOW DAMS CREST BELOW SPILLWAY CREST BAGE HEIGHT BTORAGE-MAINTAIN OUTLET FULLY	OPE	:N 	
ACTIONS RE	QUIRED FOR	CONDITIONAL FULL STORAGE OR CO	ONTINUED STORAGE AT THE RESTRICT	TED LEVEL:				
Engineer's			Owner's Signature		DATF: 12/13/20			_

OWNER/OWNER'S REPRESENTATIVE

CONDITIONS OBSERVED - APPLIES TO UPSTEAM SLOPE, CREST, DOWNSTREAM SLOPE, OUTLET, SPILLWAY

GOOD

In general, this part of the structure has a near new appearance, and conditions observed in this are do not appear to threaten the safety of the dam.

ACCEPTABLE

Although general cross-section is maintained, surfaces may be irregular, eroded, rutted, spalled, or otherwise not in new condition. Conditions in this area do not currently appear to threaten the safety of the dam.

POOR

Conditions observed in this area appear to threaten the safety of the dam.

CONDITIONS OBSERVED - APPLIES TO SEEPAGE

GOOD

No evidence of uncontrolled seepage. No unexplained increase in flows from designed drains. All seepage is clear. Seepage conditions do not appear to threaten the safety of the dam.

ACCEPTABLE

Some seepage exists at areas other than the drain outfalls, or other designed drains. No unexplained increase in seepage. All seepage is clear. Seepage conditions observed do not currently appear to threaten the safety of the dam

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ACCEPTABLE

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POOR

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UNSATISFACTORY

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SAFE STORAGE LEVEL

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DAM NAME LAKE BLOOMFIELD PERMIT #120 DATE OF INSPECTION 27/2018 DAM ID AR01177 DATE OF LAST INSPECTION 3/30/201				_
OWNER NAME BLOOMFIELD HILLS POA ADDRESS 8 ARCADIA CIRCLE, BRANT, AR CONTACT NAME FRED FOSTER OWNER PHONE 501.804.1218 ZIF	72022			- - -
	REST WIDT	H <u>-</u>	F	T
DIRECTIONS: MARK AN X FOR CONDITIONS FOUND, GIVE LOCATION AND EXTENT WITH NUMBER REFERE FIELD CONDITIONS OBSERVED WATER LEVEL - BELOW DAM CREST3	:NCE			
PROBLEMS NOTED: (0) NONE (1) RIPRAP - MISSING, SPARSE, DISPLACED, WEATHERED (2) WAVE EROSION-WITH SCARPS (3) CRACKS WITH DISPLACEMENT (4) SINKHOLE (5) APPEARS TOO STEEP (6) DEPRESSIONS OR BULGES (7) SLIDES (8) CONCRETE FACING-HOLES, CRACKS, DISPLACED, UNDERMINED (9) OTHER COMMENTS; WAVE EROSION ACROSS UPSTREAM SLOPE; OWNER HAS BEGUN EFFORTS TO ADD RIP-RAP, BUT HE DID NOT RE-GRADE THE UPSTREAM SLOPE BEFORE ADDING THE RIP-SO THE EROSION IS MERELY COVERED UP BY THE RIP-RAP (TEMPORARY SOLUTION TO A LONG-TERM PROBLEM); WAVE EROSION HAS LED TO SCARPING (ESPECIALLY ON LEFT SIDE U/S SLOPE)	2-RAP, OF	GOOD GOOD	ACCEPTABLE	Poor
PROBLEMS NOTED: ☐ (10) NONE ☐ (11) RUTS OR PUDDLES ☐ (12) EROSION ☐ (13) CRACKS - WITH DISPLACEMENT ☐ (14) SINKHOLD ☐ (15) NOT WIDE ENOUGH ☑ (16) LOW AREA ☐ (17) MISALIGNMENT ☐ (18) INADEQUATE SURFACE DRAINAGE ☐ (19) OTHER ☐ COMMENTS: LOW AREA NEAR LEFT ABUTMENT	LES E	GOOD	ACCEPTABLE	Poor
		<u>.</u> О	•	O
PROBLEMS NOTED: (20) NONE (21) LIVESTOCK DAMAGE (22) EROSION OR GULLIES (23) CRACKS - WITH DISPLACEMENT (24) SINKHOLE (25) APPEARS TOO STEEP (26) DEPRESSION OR BULGES (27) SLIDE (28) SOFT AREAS (29) OTHER (29) O		GOOD GOOD	ACCEPTABLE	POOR
	_]		0	0
PROBLEMS NOTED: ☑ (30) NONE ☐ (31) SATURATED EMBANKMENT AREA ☐ (32) SEEPAGE EXITS ON EMBANKMENT ☐ (33) SEEPAGE EXITS AT POINT SOURCE ☐ (34) SEEPAGE AREA AT TOE ☐ (35) FLOW ADJACENT TO OUTLET ☐ (36) SEEPAGE INCREASED DRAIN OUTFALLS SEEN ☑ NO ☐ YES ☐ (37) FLOW INCREASED/MUDDY ☐ (38) DRAIN DRY/OBSTRUCTED ☐ (39) OTHER ☐ (39) OTHER ☐ (39) SEEPAGE EXITS ON EMBANKMENT ☐ (36) SEEPAGE INCREASED ☐ (37) FLOW INCREASED/MUDDY ☐ (38) DRAIN DRY/OBSTRUCTED ☐ (39) OTHER ☐ (39) SEEPAGE EXITS ON EMBANKMENT ☐ (36) SEEPAGE INCREASED ☐ (37) FLOW INCREASED/MUDDY ☐ (38) DRAIN DRY/OBSTRUCTED		SEEPAGE	ACCEPTABLE	POOR
PROBLEMS NOTED: (40) NONE (41) NO OUTLET FOUND (42) POOR OPERATING ACCESS (43) INOPERABLE (44) UPSTREAM OR DOWNSTREAM STRUCTURE DETERIORATED (45) OUTLET OPERATED DURING INSPECTION NO YES INTERIOR INSPECTED (120) NO (121) YES (46) CONDUIT DETERIORATED OR COLLAPSED (47) JOINTS DISPLACED (48) VALVE LEAKAGE DRAIN OUTFALLS SEEN NO YES (49) OTHER COMMENTS: NO PRIMARY SPILLWAY	Halino	000D C	ACCEPTABLE	Poor
	_		0	O
PROBLEMS NOTED:		GOOD	ACCEPTABLE	POOR

INSPECTED BY

	MONITORING
NCE	3

☐ (114) SURVE MONITORING (TURMENTATION FOUND: ☑ (110) NONE ☐ (111) GAGE ROD ☐ (112) PIEZOMETERS ☐ (113) SEEPAGE WEIRS/FLUMES EY MONUMENTS ☐ (115) OTHER OF INSTRUMENTATION: ☑ (116) NO ☐ (117) YES PERIODIC INSPECTIONS BY: ☑ (118) OWNER ☐ (119) ENGINEER	GOOD	ACCEPTABLE
☐ (63) BRUSH☐ (65) RODEN☐	OTED: (60) NONE (61) ACCESS ROAD NEEDS MAINTENANCE (62) CATTLE DAMAGE ON UPSTREAM SLOPE, CREST, DOWNSTREAM, TOE (64) TREES ON UPSTREAM SLOPE, CREST, DOWNSTREAM SLOPE, TOE TACTIVITY ON UPSTREAM SLOPE, CREST, DOWNSTREAM, SLOPE, TOE (66) DETERIORATED CONCRETE-FACING, OUTLET, SPILLWAY OPERATING MECHANISM NEED MAINTENANCE (68) OTHER EPAIR UPSTREAM SLOPE PROPERLY ADDING FILL, RE-GRADING, AND ADDING RIP-RAP; ADDRESS SINKHOLE AND EROSION ISSUE BELOW AUXILIARY SPILLWAY SINEER)	GOOD GOOD	ACCEPTABLE
REMARKS:			
	afety Inspection and recent file review, the overall condition is determined to be: ACTORY (72) CONDITIONALLY SATISFACTORY (73) UNSATISFACTORY	GOOD GOOD	ACCEPTABLE
The State Engineer by providing this dam safety inspection report, does not assume responsibility for any unsafe condition of the subject dam. The sole responsibility for the safety of this dam rests with the reservior owner or operator, who should take every step necessary to prevent damages caused by leakage or overflow of waters from the reservoir or floods resulting from a failure of the dam.	MAINTENANCE - MINOR REPAIR - MONITORING (80) PROVIDE ADDITIONAL RIPRAP: UPSTREAM SLOPE (81) LUBRICATE & OPERATE OUTLET GATES THROUGH FULL CYCLE: (82) CLEAR TREES AND/OR BRUSH FROM: (83) INITIATE RODENT CONTROL PROGRAM & PROPERLY BACKFILL EXISTING HOLES: (84) GRADE CREST TO A UNIFORM ELEVATION WITH DRAINAGE TO THE UPSTREAM SLOPE: (85) PROVIDE SURFACE DRAINAGE FOR: (86) MONITOR: SINKHOLE (87) DEVELOP AND SUBMIT AN EMERGENCY ACTION PLAN: (87) DEVELOP AND SUBMIT AN EMERGENCY ACTION PLAN: (88) OTHER: (89) OTHER: (90) PREPARE PLANS & SPECIFICATIONS FOR THE REHABILITATION OF THE DAM: (91) PREPARE PLANS & SPECIFICATIONS FOR THE REHABILITATION OF THE DAM: (91) PREPARE AS-BUILT DRAWINGS OF: (92) PERFORM A GEOTECHNICAL INVESTIGATION TO EVALUATE THE STABILITY OF THE DAM: (93) PERFORM A GEOTECHNICAL INVESTIGATION FOR AN ADEQUATE SPILLWAY: (94) PREPARE PLANS & SPECIFICATIONS FOR AN ADEQUATE SPILLWAY: (95) SET UP A MONITORING SYSTEM INCLUDING WORK SHEETS, REDUCED DATA & GRAPHED RESULTS: (96) PERFORM AN INTERNAL INSPECTION OF THE OUTLET: (97) OTHER: (98) OTHER:		
	SAFE STORAGE LEVEL RECOMMENDED AS A RESULT OF THIS INSPECTION To (101) FULL STORAGE RESTRICTED LEVEL OFFICIAL ORDER TO FOLLOW OFFICIAL ORDER TO	PEN	
REASON FOR RE	STRICTION:		
ACTIONS REQUIR	RED FOR CONDITIONAL FULL STORAGE OR CONTINUED STORAGE AT THE RESTRICTED LEVEL:		
Engineer's	Owner's SignatureDATE: 2/7/2018		

OWNER/OWNER'S REPRESENTATIVE

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DAM NAME LAKE BLOOMFIELD PERMIT #120 DATE OF INSPECTION 27/2018 DAM ID AR01177 DATE OF LAST INSPECTION 3/30/201				_
OWNER NAME BLOOMFIELD HILLS POA ADDRESS 8 ARCADIA CIRCLE, BRANT, AR CONTACT NAME FRED FOSTER OWNER PHONE 501.804.1218 ZIF	72022			- - -
	REST WIDT	H <u>-</u>	F	T
DIRECTIONS: MARK AN X FOR CONDITIONS FOUND, GIVE LOCATION AND EXTENT WITH NUMBER REFERE FIELD CONDITIONS OBSERVED WATER LEVEL - BELOW DAM CREST3	:NCE			
PROBLEMS NOTED: (0) NONE (1) RIPRAP - MISSING, SPARSE, DISPLACED, WEATHERED (2) WAVE EROSION-WITH SCARPS (3) CRACKS WITH DISPLACEMENT (4) SINKHOLE (5) APPEARS TOO STEEP (6) DEPRESSIONS OR BULGES (7) SLIDES (8) CONCRETE FACING-HOLES, CRACKS, DISPLACED, UNDERMINED (9) OTHER COMMENTS; WAVE EROSION ACROSS UPSTREAM SLOPE; OWNER HAS BEGUN EFFORTS TO ADD RIP-RAP, BUT HE DID NOT RE-GRADE THE UPSTREAM SLOPE BEFORE ADDING THE RIP-SO THE EROSION IS MERELY COVERED UP BY THE RIP-RAP (TEMPORARY SOLUTION TO A LONG-TERM PROBLEM); WAVE EROSION HAS LED TO SCARPING (ESPECIALLY ON LEFT SIDE U/S SLOPE)	2-RAP, OF	GOOD GOOD	ACCEPTABLE	Poor
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		<u>.</u> О	•	O
PROBLEMS NOTED: (20) NONE (21) LIVESTOCK DAMAGE (22) EROSION OR GULLIES (23) CRACKS - WITH DISPLACEMENT (24) SINKHOLE (25) APPEARS TOO STEEP (26) DEPRESSION OR BULGES (27) SLIDE (28) SOFT AREAS (29) OTHER (29) O		GOOD GOOD	ACCEPTABLE	POOR
	_]		0	0
PROBLEMS NOTED: ☑ (30) NONE ☐ (31) SATURATED EMBANKMENT AREA ☐ (32) SEEPAGE EXITS ON EMBANKMENT ☐ (33) SEEPAGE EXITS AT POINT SOURCE ☐ (34) SEEPAGE AREA AT TOE ☐ (35) FLOW ADJACENT TO OUTLET ☐ (36) SEEPAGE INCREASED DRAIN OUTFALLS SEEN ☑ NO ☐ YES ☐ (37) FLOW INCREASED/MUDDY ☐ (38) DRAIN DRY/OBSTRUCTED ☐ (39) OTHER ☐ (39) OTHER ☐ (39) SEEPAGE EXITS ON EMBANKMENT ☐ (36) SEEPAGE INCREASED ☐ (37) FLOW INCREASED/MUDDY ☐ (38) DRAIN DRY/OBSTRUCTED ☐ (39) OTHER ☐ (39) SEEPAGE EXITS ON EMBANKMENT ☐ (36) SEEPAGE INCREASED ☐ (37) FLOW INCREASED/MUDDY ☐ (38) DRAIN DRY/OBSTRUCTED		SEEPAGE	ACCEPTABLE	POOR
PROBLEMS NOTED: (40) NONE (41) NO OUTLET FOUND (42) POOR OPERATING ACCESS (43) INOPERABLE (44) UPSTREAM OR DOWNSTREAM STRUCTURE DETERIORATED (45) OUTLET OPERATED DURING INSPECTION NO YES INTERIOR INSPECTED (120) NO (121) YES (46) CONDUIT DETERIORATED OR COLLAPSED (47) JOINTS DISPLACED (48) VALVE LEAKAGE DRAIN OUTFALLS SEEN NO YES (49) OTHER COMMENTS: NO PRIMARY SPILLWAY	Halino	000D C	ACCEPTABLE	Poor
	_		0	O
PROBLEMS NOTED:		GOOD	ACCEPTABLE	POOR

INSPECTED BY

	MONITORING
NCE	3

☐ (114) SURVE MONITORING (TURMENTATION FOUND: ☑ (110) NONE ☐ (111) GAGE ROD ☐ (112) PIEZOMETERS ☐ (113) SEEPAGE WEIRS/FLUMES EY MONUMENTS ☐ (115) OTHER OF INSTRUMENTATION: ☑ (116) NO ☐ (117) YES PERIODIC INSPECTIONS BY: ☑ (118) OWNER ☐ (119) ENGINEER	GOOD	ACCEPTABLE
☐ (63) BRUSH☐ (65) RODEN☐	OTED: (60) NONE (61) ACCESS ROAD NEEDS MAINTENANCE (62) CATTLE DAMAGE ON UPSTREAM SLOPE, CREST, DOWNSTREAM, TOE (64) TREES ON UPSTREAM SLOPE, CREST, DOWNSTREAM SLOPE, TOE TACTIVITY ON UPSTREAM SLOPE, CREST, DOWNSTREAM, SLOPE, TOE (66) DETERIORATED CONCRETE-FACING, OUTLET, SPILLWAY OPERATING MECHANISM NEED MAINTENANCE (68) OTHER EPAIR UPSTREAM SLOPE PROPERLY ADDING FILL, RE-GRADING, AND ADDING RIP-RAP; ADDRESS SINKHOLE AND EROSION ISSUE BELOW AUXILIARY SPILLWAY SINEER)	GOOD GOOD	ACCEPTABLE
REMARKS:			
	afety Inspection and recent file review, the overall condition is determined to be: ACTORY (72) CONDITIONALLY SATISFACTORY (73) UNSATISFACTORY	GOOD GOOD	ACCEPTABLE
The State Engineer by providing this dam safety inspection report, does not assume responsibility for any unsafe condition of the subject dam. The sole responsibility for the safety of this dam rests with the reservior owner or operator, who should take every step necessary to prevent damages caused by leakage or overflow of waters from the reservoir or floods resulting from a failure of the dam.	MAINTENANCE - MINOR REPAIR - MONITORING (80) PROVIDE ADDITIONAL RIPRAP: UPSTREAM SLOPE (81) LUBRICATE & OPERATE OUTLET GATES THROUGH FULL CYCLE: (82) CLEAR TREES AND/OR BRUSH FROM: (83) INITIATE RODENT CONTROL PROGRAM & PROPERLY BACKFILL EXISTING HOLES: (84) GRADE CREST TO A UNIFORM ELEVATION WITH DRAINAGE TO THE UPSTREAM SLOPE: (85) PROVIDE SURFACE DRAINAGE FOR: (86) MONITOR: SINKHOLE (87) DEVELOP AND SUBMIT AN EMERGENCY ACTION PLAN: (87) DEVELOP AND SUBMIT AN EMERGENCY ACTION PLAN: (88) OTHER: (89) OTHER: (90) PREPARE PLANS & SPECIFICATIONS FOR THE REHABILITATION OF THE DAM: (91) PREPARE PLANS & SPECIFICATIONS FOR THE REHABILITATION OF THE DAM: (91) PREPARE AS-BUILT DRAWINGS OF: (92) PERFORM A GEOTECHNICAL INVESTIGATION TO EVALUATE THE STABILITY OF THE DAM: (93) PERFORM A GEOTECHNICAL INVESTIGATION FOR AN ADEQUATE SPILLWAY: (94) PREPARE PLANS & SPECIFICATIONS FOR AN ADEQUATE SPILLWAY: (95) SET UP A MONITORING SYSTEM INCLUDING WORK SHEETS, REDUCED DATA & GRAPHED RESULTS: (96) PERFORM AN INTERNAL INSPECTION OF THE OUTLET: (97) OTHER: (98) OTHER:		
	SAFE STORAGE LEVEL RECOMMENDED AS A RESULT OF THIS INSPECTION To (101) FULL STORAGE RESTRICTED LEVEL OFFICIAL ORDER TO FOLLOW OFFICIAL ORDER TO	PEN	
REASON FOR RE	STRICTION:		
ACTIONS REQUIR	RED FOR CONDITIONAL FULL STORAGE OR CONTINUED STORAGE AT THE RESTRICTED LEVEL:		
Engineer's	Owner's SignatureDATE: 2/7/2018		

OWNER/OWNER'S REPRESENTATIVE

CONDITIONS OBSERVED - APPLIES TO UPSTEAM SLOPE, CREST, DOWNSTREAM SLOPE, OUTLET, SPILLWAY

GOOD

In general, this part of the structure has a near new appearance, and conditions observed in this are do not appear to threaten the safety of the dam.

ACCEPTABLE

Although general cross-section is maintained, surfaces may be irregular, eroded, rutted, spalled, or otherwise not in new condition. Conditions in this area do not currently appear to threaten the safety of the dam.

POOR

Conditions observed in this area appear to threaten the safety of the dam.

CONDITIONS OBSERVED - APPLIES TO SEEPAGE

GOOD

No evidence of uncontrolled seepage. No unexplained increase in flows from designed drains. All seepage is clear. Seepage conditions do not appear to threaten the safety of the dam.

ACCEPTABLE

Some seepage exists at areas other than the drain outfalls, or other designed drains. No unexplained increase in seepage. All seepage is clear. Seepage conditions observed do not currently appear to threaten the safety of the dam

POOR

Seepage conditions observed appear to threaten the safety of the dam. Examples:

- 1) Designed drain or seepage flows have increased without increase in reservior level.
- 2) Drain or seepage flows contain sediment,
- i.e., muddy water or particles in jar samples.
- 3) Widespread seepage, concentrated seepage or ponding appears to threaten the safety of the dam.

CONDITIONS OBSERVED - APPLIES TO MONITORING

GOOD

Instrumentation and monitoring described under acceptable are being exceeded, as described under comments in the report.

ACCEPTABLE

Instrumentation is provided in accordance with the rules. Special instrumentation and monitoring deemed necessary is provided. The owner monitors the dam and records data in accordance with the rules, and submits the data annually or more frequently if required.

POOR

Required instrumentation and monitoring are not provided or required periodic readings are not being made or unexplained changes in readings are not reacted to by the owner.

CONDITIONS OBSERVED - APPLIES TO MAINTENANCE AND REPAIR

GOOD

Owner has a plan for annual maintenance. Dam consistently receives effective on-going maintenance and repair.

ACCEPTABLE

Dam receives maintenance in accordance with a plan, but some maintenance items need to be addressed. No major repairs are required.

POOR

No annual maintenance plan in effect. Dan does not appear to receive adequate maintenance. One or more items needing maintenance or repair have begun to threaten the safety of the dam. Lack of maintenance prevents thorough inspection.

OVERALL CONDITIONS

SATISFACTORY

The safety inspection indicates no conditions that appear to threaten the safety of the dam and the dam is expected to perform satisfactorily under all design loading conditions.

CONDITIONALLY SATISFACTORY

The safety inspection indicates symptoms of structural distress (excessive seepage, evidence of major displacements, etc.) which if conditions worsen, could lead to the failure of the dam. Essential monitoring, inspection and maintenance must be performed as a requirement for conditinued full storage in the reservoir or storage at a reduced level. There are no requirements if maintained at the restricted level.

UNSATISFACTORY

No annual maintenance plan in effect. Dan does not appear to receive adequate maintenance. One or more items needing maintenance or repair have begun to threaten the safety of the dam. Lack of maintenance prevents thorough inspection.

SAFE STORAGE LEVEL

FULL STORAGE

Dam may be used to full capacity with no conditions attached.

CONDITIONAL FULL STORAGE

Dam may be used to full storage if certain monitoring, maintenance or operational conditions are met.

RESTRICTION

Dam may no be used to full capacity, but must be operated at some reduced level in the interest of public safety.

- CLASS 1 Loss of human life is expected in the event of failure of the dam.
- CLASS 2 Significant damage is expected in the event of failure of the dam, but no loss of human life is expected.
- CLASS 3-A small amount of damage is expected. Loss of human life and significant damage are not expected.
- CLASS 4 No loss of human is expected and damage will occur only to the dam owner's property.

DAM NAME LAKE CORTEZ DAM PERMIT #178 DAM ID AR01206 DATE OF INSPECTION 1/8/2 1/31/				_
OWNER NAME HOT SPRINGS VILLAGE POA ADDRESS 895 DESOTO BLVD CONTACT NAME JASON TEMPLE CONTACT PHONE 501.922.5522 Z	ZIP_71909 CREST WIDT		F	- - - -
CLASS H CAPACITY 5840 AF SURFACE AREA 247 AC HEIGHT 80 FT CREST LENGTH 857 FT CURRENT RESTRICTION (NO) (YES) LEVEL EAP ON FILE (NO) (YES) (YES) INSPECTION PARTY REPRESENTING WALT MACPHEE, ANRC				_
DIRECTIONS: MARK AN X FOR CONDITIONS FOUND, GIVE LOCATION AND EXTENT WITH NUMBER REFERENCE FIELD CONDITIONS OBSERVED WATER LEVEL - BELOW DAM CREST ~12 FT BELOW SPILLWAY OVER ~1 IN. FT GAGE ROD X GROUND MOISTURE CONDITION: DRY WET X SNOWCOVER OTHER				
PROBLEMS NOTED: (1) NONE (1) RIPRAP - MISSING, SPARSE, DISPLACED, WEATHERED (2) WAVE EROSION-WITH SCARPS (3) CRACKS WITH DISPLACEMENT (4) SINKHOLE (5) APPEARS TOO STEEP (6) DEPRESSIONS OR BULGES (7) SLIDES (8) CONCRETE FACING-HOLES, CRACKS, DISPLACED, UNDERMINED (9) OTHER SMALL TREES AND VEGETATION COMMENTS:		UPSTREAM SLOPE GOOD	ACCEPTABLE	Poor
PROBLEMS NOTED: (10) NONE (11) RUTS OR PUDDLES (12) EROSION (13) CRACKS - WITH DISPLACEMENT (14) SINKH (15) NOT WIDE ENOUGH (16) LOW AREA (17) MISALIGNMENT (18) INADEQUATE SURFACE DRAINAGE (19) OTHER (29) OTHER (20) OTHER	HOLES	CREST GOOD	ACCEPTABLE	Poor
PROBLEMS NOTED: (20) NONE (21) LIVESTOCK DAMAGE (22) EROSION OR GULLIES (23) CRACKS - WITH DISPLACEMENT (24) SINKHOLE (25) APPEARS TOO STEEP (26) DEPRESSION OR BULGES (27) SLIDE (28) SOFT AREAS (29) OTHER EXCESS VEGETATION COMMENTS:		BOWNSTREAM SLOPE GOOD	ACCEPTABLE	Poor
		\bigcirc	•	0
PROBLEMS NOTED: □ (30) NONE □ (31) SATURATED EMBANKMENT AREA □ (32) SEEPAGE EXITS ON EMBANKMENT □ (33) SEEPAGE EXITS AT POINT SOURCE □ (34) SEEPAGE AREA AT TOE □ (35) FLOW ADJACENT TO OUTLET □ (36) SEEPAGE INCREAS DRAIN OUTFALLS SEEN □ NO □ (37) FLOW INCREASED/MUDDY □ (38) DRAIN DRY/OBSTRUCTED □ (39) OTHER □ (30) SEEPAGE EXITS ON EMBANKMENT □ (31) SEEPAGE EXITS ON EMBANKMENT □ (32) SEEPAGE EXITS ON EMBANKMENT □ (33) SEEPAGE EXITS ON EMBANKMENT □ (34) SEEPAGE EXITS ON EMBANKMENT □ (35) FLOW ADJACENT TO OUTLET □ (36) SEEPAGE INCREASED/MUDDY □ (38) DRAIN DRY/OBSTRUCTED □ (39) OTHER □ (30) SEEPAGE EXITS ON EMBANKMENT □ (30) SEEPAGE EXITS ON	SED/MUDDY	SEEPAGE GOOD	ACCEPTABLE	POOR
PROBLEMS NOTED: (40) NONE (41) NO OUTLET FOUND (42) POOR OPERATING ACCESS (43) INOPERABLE (44) UPSTREAM OR DOWNSTREAM STRUCTURE DETERIORATED (45) OUTLET OPERATED DURING INSPECTION NO YES INTERIOR INSPECTED (120) NO (121) YES (46) CONDUIT DETERIORATED OR COLLAPSED (47) JOINTS DISPLACED (48) VALVE LEAKAGE DRAIN OUTFALLS SEEN NO YES (49) OTHER COMMENTS: PRIMARY SPILLWAY CONDUIT VALVE WAS FULLY OPEN (BASED ON METER), BUT WATER DID NOT APPEAR TO BE FLOWING © OUTLET, OUTLET WAS INUNDATED		OUTLET GOOD (ACCEPTABLE	O ROOR
PROBLEMS NOTED: ☑ (50) NONE ☐ (51) NO EMERGENCY SPILLWAY FOUND ☐ (52) EROSION WITH BACKCUTTING ☐ (53) CRACK - WITH DISPLACEMENT ☐ (54) APPEARS TO BE STRUCTURALLY INADEQUATE ☐ (55) APPEARS TOO SMALL ☐ (56) INADEQUATE FREEBOARD ☐ (57) FLOW OBSTRUCTED ☑ (58) CONCRETE DETERIORATED/UNDERMINED ☐ (59) OTHER ☐ (59) OTHER ☐ COMMENTS: SOME VEGETATION GROWING IN CRACKS; MINOR CONCRETE DETERIORATION @ TOP OF SPILLWAY	XXIII	SPILLWAY GOOD	ACCEPTABLE	Poor

MONITORING OF INSTRUMENTATION:	פֿ	EXISTING INSTURMENTATION FOUND: ☑ (110) NONE ☐ (111) GAGE ROD ☐ (112) PIEZOMETERS ☐ (113) SEEPAGE WEIRS/FLUMES ☐ (114) SURVEY MONUMENTS ☐ (115) OTHER	ල	C	0
SOURCE ODM/ENTS REMARKS: @FAN PROFITATION/THES FROMOMA & SPAN NAY. PENTEY SISTE WITH PRIMARY SPAN NAY CONTINUE Based on this Safety Respection and recent file review, the overall condition is determined to be: (71) SATISFACTORY (72) CONDITIONALLY SATISFACTORY (73) UNSATISFACTORY	MONIORI	MONITORING OF INSTRUMENTATION: □ (116) NO □ (117) YES PERIODIC INSPECTIONS BY: ☑ (118) OWNER □ (119) ENGINEER	MONITORIN	G00D	ACCEPTABLE
Based on this Safety Inspection and recent file review, the overall condition is determined to be: (71) SATISFACTORY (72) CONDITIONALLY SATISFACTORY (73) UNSATISFACTORY	& REPAIR	☑ (63) BRUSH ON UPSTREAM SLOPE, CREST, DOWNSTREAM, TOE ☑ (64) TREES ON UPSTREAM SLOPE, CREST, DOWNSTREAM SLOPE, TOE ☐ (65) RODENT ACTIVITY ON UPSTREAM SLOPE, CREST, DOWNSTREAM, SLOPE, TOE ☐ (66) DETERIORATED CONCRETE-FACING, OUTLET, SPILLWAY ☐ (67) GATE & OPERATING MECHANISM NEED MAINTENANCE ☐ (68) OTHERCOMMENTS:	MAINTENANCE & REPAIR	0000	
ITEMS REQUIRING ACTION BY OWNER TO IMPROVE THE SAFETY OF THE DAM MAINTENANCE - MINOR REPAIR - MONITORING (10) PROVIDE ADDITIONAL RIPRAP (10) PROVIDE ADDITI	<u>S</u>	REMARKS: CLEAR VEGETATION/TREES FROM DAM & SPILLWAY; IDENTIFY ISSUE WITH PRIMARY SPILLWAY CONDUIT	LIONS	\bigcirc	0
Both	CONDITION		OVERALL CONDI	G00D	ACCEPTABLE
RESTRICTED LEVEL (101) FULL STORAGE (102) CONDITIONAL FULL STORAGE (103) RECOMMENDED RESTRICTION REASON FOR RESTRICTION: ACTIONS REQUIRED FOR CONDITIONAL FULL STORAGE OR CONTINUED STORAGE AT THE RESTRICTED LEVEL: Engineer's Signature DATE: 1/8/2018		MAINTENANCE - MINOR REPAIR - MONITORING Report Repor			
ACTIONS REQUIRED FOR CONDITIONAL FULL STORAGE OR CONTINUED STORAGE AT THE RESTRICTED LEVEL: Engineer's Signature DATE: 1/8/2018	F	☐ (101) FULL STORAGE ☐ (102) CONDITIONAL FULL STORAGE ☐ (103) RECOMMENDED RESTRICTION ☐ (103) RECOMMENDED RESTRICTION ☐ (104) FULL STORAGE ☐ (105) CONDITIONAL FULL STORAGE ☐ (106) OFFICIAL ORDER TO FOLLOW ☐ (107) FULL STORAGE ☐ (107) FULL STORAGE ☐ (108) OFFICIAL ORDER TO FOLLOW ☐ (108) FULL STORAGE ☐ (109) OFFICIAL ORDER TO FOLLOW ☐ (109) OFFICIAL ORDER TO FO	OPE	iN —	
SignatureSignatureDATE: 1/8/2018	-				
INSPECTED BY OMINIED/OM		SignatureSignatureDATE: 1/8/2018			

CONDITIONS OBSERVED - APPLIES TO UPSTEAM SLOPE, CREST, DOWNSTREAM SLOPE, OUTLET, SPILLWAY

GOOD

In general, this part of the structure has a near new appearance, and conditions observed in this are do not appear to threaten the safety of the dam.

ACCEPTABLE

Although general cross-section is maintained, surfaces may be irregular, eroded, rutted, spalled, or otherwise not in new condition. Conditions in this area do not currently appear to threaten the safety of the dam.

POOR

Conditions observed in this area appear to threaten the safety of the dam.

CONDITIONS OBSERVED - APPLIES TO SEEPAGE

GOOD

No evidence of uncontrolled seepage. No unexplained increase in flows from designed drains. All seepage is clear. Seepage conditions do not appear to threaten the safety of the dam.

ACCEPTABLE

Some seepage exists at areas other than the drain outfalls, or other designed drains. No unexplained increase in seepage. All seepage is clear. Seepage conditions observed do not currently appear to threaten the safety of the dam

POOR

Seepage conditions observed appear to threaten the safety of the dam. Examples:

- 1) Designed drain or seepage flows have increased without increase in reservior level.
- 2) Drain or seepage flows contain sediment,
- i.e., muddy water or particles in jar samples.
- 3) Widespread seepage, concentrated seepage or ponding appears to threaten the safety of the dam.

CONDITIONS OBSERVED - APPLIES TO MONITORING

GOOD

Instrumentation and monitoring described under acceptable are being exceeded, as described under comments in the report.

ACCEPTABLE

Instrumentation is provided in accordance with the rules. Special instrumentation and monitoring deemed necessary is provided. The owner monitors the dam and records data in accordance with the rules, and submits the data annually or more frequently if required.

POOR

Required instrumentation and monitoring are not provided or required periodic readings are not being made or unexplained changes in readings are not reacted to by the owner.

CONDITIONS OBSERVED - APPLIES TO MAINTENANCE AND REPAIR

GOOD

Owner has a plan for annual maintenance. Dam consistently receives effective on-going maintenance and repair.

ACCEPTABLE

Dam receives maintenance in accordance with a plan, but some maintenance items need to be addressed. No major repairs are required.

POOR

No annual maintenance plan in effect. Dan does not appear to receive adequate maintenance. One or more items needing maintenance or repair have begun to threaten the safety of the dam. Lack of maintenance prevents thorough inspection.

OVERALL CONDITIONS

SATISFACTORY

The safety inspection indicates no conditions that appear to threaten the safety of the dam and the dam is expected to perform satisfactorily under all design loading conditions.

CONDITIONALLY SATISFACTORY

The safety inspection indicates symptoms of structural distress (excessive seepage, evidence of major displacements, etc.) which if conditions worsen, could lead to the failure of the dam. Essential monitoring, inspection and maintenance must be performed as a requirement for conditinued full storage in the reservoir or storage at a reduced level. There are no requirements if maintained at the restricted level.

UNSATISFACTORY

No annual maintenance plan in effect. Dan does not appear to receive adequate maintenance. One or more items needing maintenance or repair have begun to threaten the safety of the dam. Lack of maintenance prevents thorough inspection.

SAFE STORAGE LEVEL

FULL STORAGE

Dam may be used to full capacity with no conditions attached.

CONDITIONAL FULL STORAGE

Dam may be used to full storage if certain monitoring, maintenance or operational conditions are met.

RESTRICTION

Dam may no be used to full capacity, but must be operated at some reduced level in the interest of public safety.

- CLASS 1 Loss of human life is expected in the event of failure of the dam.
- CLASS 2 Significant damage is expected in the event of failure of the dam, but no loss of human life is expected.
- CLASS 3-A small amount of damage is expected. Loss of human life and significant damage are not expected.
- CLASS 4 No loss of human is expected and damage will occur only to the dam owner's property.

	KE ELMDALE PERMIT #353 DATE OF LAST INSPECTION.				_
	ARKANSAS GAME & FISH COMMISSION OWNER PHONE 501.223.6305				_
	ITURAL RESOURCES DR. LITTLE ROCK, AR ME JAMES ROGERS CONTACT PHONE 479.926.0987	_ZIP_72205			_
CLASS_H CURRENT RE	CAPACITY 1049 AF SURFACE AREA 125 AC HEIGHT 46 FT CREST LENGTH 1500 FT STRICTION (NO) (YES) LEVEL - EAP ON FILE (NO) (YES) PARTY REPRESENTING Stephen Smedley ANRC; Andrew Cherry ANRC; Jackson Pruss ANRC	CREST WIDT	ΓΗ <u>19</u>		FT -
	DIRECTIONS: MARK AN X FOR CONDITIONS FOUND, GIVE LOCATION AND EXTENT WITH NUMBER REF	ERENCE			
	WATER LEVEL - BELOW DAM CREST8-10 FT BELOW SPILLWAY _OVER/1/2 IN FT GAGE ROD GROUND MOISTURE CONDITION: DRY WET_X SNOWCOVER OTHER				
□ (3) CRA □ (8) CON	S NOTED:		UPSTREAM SLOPE GOOD	ACCEPTABLE	Poor
	S NOTED: 🗖 (10) NONE 🗖 (11) RUTS OR PUDDLES 🗖 (12) EROSION 🗖 (13) CRACKS - WITH DISPLACEMENT 🗖 (14) SIN	IKHOLES) ()C
□ (15) NO	TWIDE ENOUGH ☐ (16) LOW AREA ☐ (17) MISALIGNMENT ☐ (18) INADEQUATE SURFACE DRAINAGE		GOOD	ACCEPTABLE	POOR
 			SLOPE) ©	C
(24) SIN	S NOTED: (20) NONE (21) LIVESTOCK DAMAGE (22) EROSION OR GULLIES (23) CRACKS - WITH DISPLACEMEN (KHOLE (25) APPEARS TOO STEEP (26) DEPRESSION OR BULGES (27) SLIDE (28) SOFT AREAS HER (S) SATURATED AREAS NEAR MIDDLE-TOE OF DAM; TREES GROWING NEAR TOE OF DAM (RECOMMEND 20 FT. BUFFER)	ıТ 	DOWNSTREAM SLOPE	ACCEPTABLE	POOR
8 _					C
☐ (33) SEE DRAIN OUT ☐ (39) OTH	NOTED: (30) NONE (31) SATURATED EMBANKMENT AREA (32) SEEPAGE EXITS ON EMBANKMENT PAGE EXITS AT POINT SOURCE (34) SEEPAGE AREA AT TOE (35) FLOW ADJACENT TO OUTLET (36) SEEPAGE INCRE FALLS SEEN (NO YES) (37) FLOW INCREASED/MUDDY (38) DRAIN DRY/OBSTRUCTED ER S: SATURATED EMBANKMENT AND TOE; MONITOR SEEPAGE FOR SIGNS OF INCREASED/MUDDY FLOW		SEEPAGE	ACCEPTABLE	POOR
DDOD! EMS	NOTED: TO (40) NONE TO (41) NO OLITLET FOLIND TO (42) DOOD OPERATING ACCESS. TO (42) INIODEDARILE			<u>)(•</u>	
(44) UPS INTERIOR II (48) VALV (49) OTH	NOTED: (40) NONE (41) NO OUTLET FOUND (42) POOR OPERATING ACCESS (43) INOPERABLE TREAM OR DOWNSTREAM STRUCTURE DETERIORATED (45) OUTLET OPERATED DURING INSPECTION (NO (121) YES (46) CONDUIT DETERIORATED OR COLLAPSED (47) JOINTS DISPLACED IN LEAKAGE DRAIN OUTFALLS SEEN (NO (121) YES) ER S: PRIMARY SPILLWAY APPEARED TO BE FUNCTIONING PROPERLY; PERFORM PIPE INSPECTION ON NEXT YEAR'S INSPECTON		GOOD	ACCEPTABLE	POOR
		i			C
(53) CRA (56) INA (59) OTH	NOTED: (50) NONE (51) NO EMERGENCY SPILLWAY FOUND (52) EROSION WITH BACKCUTTING CK - WITH DISPLACEMENT (54) APPEARS TO BE STRUCTURALLY INADEQUATE (55) APPEARS TOO SMALL DEQUATE FREEBOARD (57) FLOW OBSTRUCTED (58) CONCRETE DETERIORATED/UNDERMINED ER S; SMALL TREE GROWTH OBSTRUCTING ENTRY TO AUXILIARY SPILLWAY; ATTEMPT TO REPAIR SECONDARY EMERGENCY SPILLWAY WITH LARGE CONCRETE A	GGREGATE	SPILLWAY	ACCEPTABLE (POOR
	NG; ADVISED JAMES ROGERS, AGFC, TO INSTALL RETAINING WALL TO RAISE ELEVATION OF SECONDARY SPILLWAY, SO WATER IS CHANNELED TOWARDS PRIMARY				

,_	EXISTING INSTURMENTATION FOUND: ☑ (110) NONE ☐ (111) GAGE ROD ☐ (112) PIEZOMETERS ☐ (113) SEEPAGE WEIRS/FLUMES		C	0
	□ (114) SURVEY MONUMENTS □ (115) OTHER MONITORING OF INSTRUMENTATION: □ (116) NO □ (117) YES PERIODIC INSPECTIONS BY: □ (118) OWNER □ (119) ENGINEER COMMENTS:	MONITORING	G005	ACCEPTABLE
& REPAIR	PROBLEMS NOTED: (60) NONE (61) ACCESS ROAD NEEDS MAINTENANCE (62) CATTLE DAMAGE (63) BRUSH ON UPSTREAM SLOPE, CREST, DOWNSTREAM, TOE (64) TREES ON UPSTREAM SLOPE, CREST, DOWNSTREAM SLOPE, TOE (65) RODENT ACTIVITY ON UPSTREAM SLOPE, CREST, DOWNSTREAM, SLOPE, TOE (66) DETERIORATED CONCRETE-FACING, OUTLET, SPILLWAY (67) GATE & OPERATING MECHANISM NEED MAINTENANCE (68) OTHER COMMENTS; CLEAR VEGETATION AND SMALL TREE GROWTH FROM DAM; MONITOR SEEPAGE AREAS; INSPECT PRIMARY SPILLWAY CONDUIT ON NEXT YEAR'S INSPECTION; ADD RETAINING WALL TO SECONDARY AUXILIARY SPILLWAY; ADD RIP-RAP TO UPSTREAM SLOPE	MAINTENANCE & REPAIR	0005	ACCEPTABLE
.	REMARKS: OVERALL, DAM IS IN GOOD CONDITION; MAIN ISSUE IS SECONDARY EMERGENCY SPILLWAY (ADD RETAINING WALL); MONITOR SEEPAGE; CLEAR TREES OBSTRUCTING	SNO	C	0
CONDITIONS	EMERGENCY SPILLWAY ENTRANCE Based on this Safety Inspection and recent file review, the overall condition is determined to be: □ (71) SATISFACTORY □ (72) CONDITIONALLY SATISFACTORY □ (73) UNSATISFACTORY	OVERALL CONDITIONS	G00D	ACCEPTABLE
	MAINTENANCE - MINOR REPAIR - MONITORING (80) PROVIDE ADDITIONAL RIPRAP: UPSTREAM SLOPE (81) LUBRICATE & OPERATE OUTLET GATES THROUGH FULL CYCLE: (81) LUBRICATE & OPERATE OUTLET GATES THROUGH FULL CYCLE: (82) CLEAR TREES AND/OR BRUSH FROM: UPSTREAM SLOPE AND TOE (20 FT. BUFFER) (83) INITIATE RODENT CONTROL PROGRAM & PROPERLY BACKFILL EXISTING HOLES: (84) GRADE CREST TO A UNIFORM ELEVATION WITH DRAINAGE TO THE UPSTREAM SLOPE: (85) PROVIDE SURFACE DRAINAGE FOR: (86) MONITOR: SEEPAGE ON EMBANKMENT AND TOE (87) DEVELOP AND SUBMIT AN EMERGENCY ACTION PLAN: (88) OTHER: ADD RETAINING WALL TO SECONDARY EMERGENCY SPILLWAY (98) OTHER: (98) OTHER: (98) OTHER: (99) PREPARE PLANS & SPECIFICATIONS FOR THE REHABILITATION OF THE DAM: (93) PREPARE PLANS & SPECIFICATIONS FOR THE REHABILITATION OF THE DAM: (93) PREPARE PLANS & SPECIFICATIONS FOR AN ADEQUATE SPILLWAY (94) PREPARE PLANS & SPECIFICATIONS FOR AN ADEQUATE SPILLWAY (95) SET UP A MONITORING SYSTEM INCLUDING WORK SHEETS, REDUCED DATA & GRAPHED RESULTS: (94) PREPARE PLANS & SPECIFICATIONS FOR AN ADEQUATE SPILLWAY: (95) SET UP A MONITORING SYSTEM INCLUDING WORK SHEETS, REDUCED DATA & GRAPHED RESULTS: (95) OTHER: (97) OTHER:			
	SAFE STORAGE LEVEL RECOMMENDED AS A RESULT OF THIS INSPECTION (101) FULL STORAGE (102) CONDITIONAL FULL STORAGE OFFICIAL ORDER TO FOLLOW (103) RECOMMENDED RESTRICTION TO (103) RECOMMENDED RESTRICTION	OPE	EN —	
	REASON FOR RESTRICTION:			
	TOTIONS NEGOTIES FOR CONSTITUTALE OLE CTOTAGE ON CONTINUES STOTAGE AT THE NECTABOLES LEVEL.			
	Engineer's Owner's Signature DATE: 8/19/2019			
,	INSPECTED BY OWNER/OWNER'S REPRESENTATIVE			

CONDITIONS OBSERVED - APPLIES TO UPSTEAM SLOPE, CREST, DOWNSTREAM SLOPE, OUTLET, SPILLWAY

GOOD

In general, this part of the structure has a near new appearance, and conditions observed in this are do not appear to threaten the safety of the dam.

ACCEPTABLE

Although general cross-section is maintained, surfaces may be irregular, eroded, rutted, spalled, or otherwise not in new condition. Conditions in this area do not currently appear to threaten the safety of the dam.

POOR

Conditions observed in this area appear to threaten the safety of the dam.

CONDITIONS OBSERVED - APPLIES TO SEEPAGE

GOOD

No evidence of uncontrolled seepage. No unexplained increase in flows from designed drains. All seepage is clear. Seepage conditions do not appear to threaten the safety of the dam.

ACCEPTABLE

Some seepage exists at areas other than the drain outfalls, or other designed drains. No unexplained increase in seepage. All seepage is clear. Seepage conditions observed do not currently appear to threaten the safety of the dam

POOR

Seepage conditions observed appear to threaten the safety of the dam. Examples:

- 1) Designed drain or seepage flows have increased without increase in reservior level.
- 2) Drain or seepage flows contain sediment,
- i.e., muddy water or particles in jar samples.
- 3) Widespread seepage, concentrated seepage or ponding appears to threaten the safety of the dam.

CONDITIONS OBSERVED - APPLIES TO MONITORING

GOOD

Instrumentation and monitoring described under acceptable are being exceeded, as described under comments in the report.

ACCEPTABLE

Instrumentation is provided in accordance with the rules. Special instrumentation and monitoring deemed necessary is provided. The owner monitors the dam and records data in accordance with the rules, and submits the data annually or more frequently if required.

POOR

Required instrumentation and monitoring are not provided or required periodic readings are not being made or unexplained changes in readings are not reacted to by the owner.

CONDITIONS OBSERVED - APPLIES TO MAINTENANCE AND REPAIR

GOOD

Owner has a plan for annual maintenance. Dam consistently receives effective on-going maintenance and repair.

ACCEPTABLE

Dam receives maintenance in accordance with a plan, but some maintenance items need to be addressed. No major repairs are required.

POOR

No annual maintenance plan in effect. Dan does not appear to receive adequate maintenance. One or more items needing maintenance or repair have begun to threaten the safety of the dam. Lack of maintenance prevents thorough inspection.

OVERALL CONDITIONS

SATISFACTORY

The safety inspection indicates no conditions that appear to threaten the safety of the dam and the dam is expected to perform satisfactorily under all design loading conditions.

CONDITIONALLY SATISFACTORY

The safety inspection indicates symptoms of structural distress (excessive seepage, evidence of major displacements, etc.) which if conditions worsen, could lead to the failure of the dam. Essential monitoring, inspection and maintenance must be performed as a requirement for conditinued full storage in the reservoir or storage at a reduced level. There are no requirements if maintained at the restricted level.

UNSATISFACTORY

No annual maintenance plan in effect. Dan does not appear to receive adequate maintenance. One or more items needing maintenance or repair have begun to threaten the safety of the dam. Lack of maintenance prevents thorough inspection.

SAFE STORAGE LEVEL

FULL STORAGE

Dam may be used to full capacity with no conditions attached.

CONDITIONAL FULL STORAGE

Dam may be used to full storage if certain monitoring, maintenance or operational conditions are met.

RESTRICTION

Dam may no be used to full capacity, but must be operated at some reduced level in the interest of public safety.

- CLASS 1 Loss of human life is expected in the event of failure of the dam.
- CLASS 2 Significant damage is expected in the event of failure of the dam, but no loss of human life is expected.
- CLASS 3-A small amount of damage is expected. Loss of human life and significant damage are not expected.
- CLASS 4 No loss of human is expected and damage will occur only to the dam owner's property.

ENGINEERS INSPECTION REPORT
OFFICE OF THE STATE ENGINEER-DIVISION OF WATER RESOURCES - DAM SAFETY BRANCH
1313 Sherman Street, Room 616, Denver, CO 80203, (303) 866-3581

1 L 0 11 0 + 110F	./	0	/1	110	2010
DAM NAME Lake Pauline Dam # 495 W. DIV.					
DAM ID A KO1528 FILE NO. C. FOREST I.D.	DATE OF LAST INS	PECTION VO	12	<u> </u>	4010
OWNER NAME Beautiful Lakevier POA	ANOHA BANMO	301-374	<u> </u>	17	
ADDRESS PO BOX 55377 Little Bock, AR	ZIP C	ODE 722	<u>05</u>		
Matt Knight	CONTACT PHONE	501-326	-01	120	2
	FT CREST LENGTH 785 FT CR	EST WIDTH			FT.
					- 1
CURRENT RESTRICTION (NO) (YES) LEVEL EPP ON FILE (I) (N	0) 2 (YES) SPWY WIDTH FT, F	50r	4, 4		
INSPECTION Joshua Graham, ARRC REPRESENTING					-
DIRECTIONS: MARK AN X FOR CONDITIONS FOUND AND UNDERLINE WORDS THA	APPLY, GIVE LOCATION AND EXTENT WITH NUME	JER	ere e		
REFERENCE I.E. (25) ALL ALONG SLOPE, OR SHOW IT ON SKETCH	[
WATER LEVEL - BELOW DAM CREST	FT., GAGE ROD				
GROUND MOISTURE COMBITION: DRY WET X SNOWCOVER				nditi bser	ions
			H-T	1	veu
PROBLEMS NOTED: (0) NONE (1) RIPRAP - MISSING, SPARSE, DISPLACED, WEATHERED			\vdash	13	
The street of th	6) DEPRESSIONS OR BULGES (7) SLIDES	,	1	1	
Comments: Large Phoe Trees acres the face of the upstress	shall shall card has	م ا	G000	POOR	Ë
Brosion and scanping; delinage exists starting	n some and between	rees!	ğ	3 8	Ě
No vip-rep & multiple animal burns				`	
PROBLEMS HOTES: [10] NONE [11] RUTS OR PUDDLES [12] EROSION [13]	CRACKS - WITH DISPLACEMENT (14) SIN	KHOLES		\top	
☐ (15) NOT WIDE ENOUGH ☐ (16) LOW AREA ☐ (17) MISALIGNMENT ☐ (18) INADEQL		WIOLLO	H	_	-
B. Co.t.			,	ايد	6
Comments: 6 present goody, sould be nice it it	us vegetatel with		0000	E 8	E
gasses,		Sheet		3 6	O
			ו וי		
PROBLEMS MOTED: (20) NONE (21) LIVESTOCK DAMAGE (22) EROSION OR GULLIES ((23) CRACKS - WITH DISPLACEMENT (24)	SINKHOLE 5		7	
(25) APPEARS TOO STEEP (26) DEPRESSION OR BULGES (27) SLIDE (28) SOFT A	REAS 129) OTHER	š		,,	á.
comments Longe trees throughout the down street	m slope; multiple a			B BE	
	vered in place needles a	<u>mbl [§</u>	0000	<u> </u>	E 6
lew6s,				ž	ğ l
		Guidelines on			
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	EXITS ON EMBANKMENT	. 40		2	
(34) SEEPAGE AREA AT TOE (35) FLOW ADJACE	NT TO OUTLET (36) SEEPAGE INCREASED/M	MDDA Q			H H
DRAIN DUTFALLS SEENNOYes	** *** *		8		WdEE
	drains on sketch and indicate amount and quality	of discharge	0000	POOR	7
Comments Secret wear of Night tol.				Ý	
ASSAUCES METTA DIAM NONE DIGITAL COUNTY FOUND WAS CORE OF DATING ACC	Fin			—	_
LEADER BRIES: TI (40) MAINE TI (41) NO COLFEL LADING TO (45) SOOK OLEDONING WOO			H	+;	<u> </u>
(45) OUTLET OPERATED DU	RING INSPECTION TYES TO NO			щ	ħ
INTERIOR (ORPECTED (120) NO (121) YES (46) CONDUIT DETERIORATED OR COLLAPSEL) 🔲 (47) JOINTS DISPLACED 🔲 (48) VALVE	: LEAKAGE	G000	ACCEPTABL	E
Comments Shufficant detantation and competen	of Principal Sall was on	-la+!	9	Ä	ਰ
and precion (6-25-17) found it to be in fair condition	. It was recommended wine	be no long	اطد	₹	a.
BRONICHI HAYER THE AND THE STATE OF THE STAT	THE BACKOUTTING TO COME ASSESSMENT	M 2022		\forall	
PROBLEMS HOTER: (50) NONE (51) NO EMERGENCY SPILLWAY FOUND (52) EROSION-WI		· I	H	+	
	INADEQUATE FREEBOARD (57) FLOW 085	ALUTO LED		BLE BLE	
Comments: Solling was rehability de in 2017, but	South mains in 2018 wa	s hed	3000	EPTAE	NT IIds
are nost of the meterial soilling is in tourible	condidon. Phy-papy con	rede	Ő	ACCEPTABLE	8
places, support when is all Bodal and has been p	andfally blocking the spilling.	Geofor]	
13 tearing and exposed. Sil Mary to oble of the or	Mary 15 pmlh. com	1			- Company of the Comp
and birdon cut the the	- / - Course sorts				

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DATE: 1 /16/

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CONDITIONS OBSERVED - APPLIES TO UPSTREAM SLOPE, CREST, DOWNSTREAM SLOPE, OUTLET, SPILLWAY

GOOD

ACCEPTABLE

POOR

In general, this part of the structure has a near new appearance, and conditions observed in this area do not appear to threaten the safety of the dam.

.... ,.,...

Although general cross-section is maintained, surfaces may be irregular, eroded, rutted, spalled, or otherwise not in new condition. Conditions in this area do not currently appear to threaten the safety of the dam.

Conditions observed in this area appear to threaten the safety of the dam.

CONDITIONS OBSERVED - APPLIES TO SEEPAGE

GCOD

ACCEPTABLE

POOR

No evidence of uncontrolled seepage. No unexplained increase in flows from designed drains. All seepage is clear. Seepage conditions do not appear to threaten the safety of the dam.

Some seepage exists at areas other than the drain outfalls, or other designed drains. No unexplained increase in seepage. All seepage is clear. Seepage conditions observed do not currently appear to threaten the safety of the

Seepage conditions observed appear to threaten the safety of the dam. Examples:

1) Designed drain or seepage flows have increased without increase in reservoir level.

2) Drain or seepage flows contain sediment, i.e., muddy water or particles in jar samples.

3) Widespread seepage, concentrated seepage or ponding appears to threaten the safety of the dam.

CONDITIONS OBSERVED - APPLIES TO MONITORING

GOOD

ACCEPTABLE

POOR

instrumentation and monitoring described under acceptable are being exceeded, as described under comments in the report.

Instrumentation is provided in accordance with the rules. Special Instrumentation and monitoring deemed necessary is provided. The owner monitors the dam and records data in accordance with the rules, and submits the data annually or more frequently if required.

Required instrumentation and monitoring are not provided, or required periodic readings are not being made, or unexplained changes in readings are not reacted to by the owner.

CONDITIONS OBSERVED - APPLIES TO MAINTENANCE AND REPAIR

GOOD

ACCEPTABLE

BUUG

Owner has a plan for annual maintenance. Dam consistently receives effective on-going maintenance and repair.

Dam receives maintenance in accordance with a plan, but some maintenance items need to be addressed. No major repairs are required. No annual maintenance plan in effect. Dam does not appear to receive adequate maintenance. One or more items needing maintenance or repair have begun to threaten the safety of the dam. Lack of maintenance prevents thorough inspection.

OVERALL CONDITIONS

SATISFACTORY

The safety Inspection indicates no conditions that appear to threaten the safety of the dam, and the dam is expected to perform satisfactorily under all design loading conditions.

CONDITIONALLY SATISFACTORY

The safety inspection indicates symptoms of structural distress (excessive seepage, evidence of major displacements, etc.) which, if conditions worsen, could lead to the failure of the dam. Essential monitoring, inspection and maintenance must be performed as a requirement for continued full storage in the reservoir or storage at a reduced level. There are no requirements if maintained at the restricted level.

UNSATISFACTORY

The safety inspection indicates definite signs of hydrologic inadequacy or structural distress (excessive seepage, cracks, slides, sinkholes, severe deterioration, etc.), which could lead to the failure of the dam if operated at full storage.

SAFE STORAGE LEVEL

FULL STORAGE

ditions attached.

conditional full stopage

RESTRICTION

Dam may be used to full storage if certain monitoring, maintenance, or operational conditions are met.

Dam may not be used to full capacity, but must be operated at some reduced level in the interest of pulic safety.

CLASSIFICATION OF DAMS

Class 1 - Loss of human life is expected in the event of failure of the dam.

Dam may be used to full capacity with no con-

Class 2 - Significant damage is expected in the event of failure of the dam, but no loss of human life is expected.

Class 4 - No loss of human life is expected and damage will occur only to the dam owner's property.

Class 3 - A small amount of damage is expected. Loss of human life and significant damage are not expected.

DAM NAME LAKI DAM ID AR00477	E POINSETT DAM PERMIT #395 DATE OF INSPECTION DATE OF LAST INSPECTION				
OWNER NAME	ARKANSAS GAME AND FISH COMMISSION OWNER PHONE 501,223,6305				
CONTACT NAM CLASS <u>H</u> CURRENT RES	CONTACT PHONE (877) 972-5438	ZIP_72205 CREST WID	TH		 _FT
	DIRECTIONS: MARK AN X FOR CONDITIONS FOUND, GIVE LOCATION AND EXTENT WITH NUMBER REI FIELD CONDITIONS OBSERVED WATER LEVEL - BELOW DAM CREST10	FERENCE			
(3) CRACI	NOTED: (0) NONE (1) RIPRAP - MISSING, SPARSE, DISPLACED, WEATHERED (2) WAVE EROSION-WITH SCARPS (KS WITH DISPLACEMENT (4) SINKHOLE (5) APPEARS TOO STEEP (6) DEPRESSIONS OR BULGES (7) SLIDES (7) SLIDES (7) SLIDES (7) SLIDES (8) STEEP (8) STEEP (10) DEPRESSIONS OR BULGES (7) SLIDES (8) STEEP (10) DEPRESSIONS OR BULGES (7) SLIDES (8) STEEP (10) DEPRESSIONS OR BULGES (7) SLIDES (7) SLIDES (8) STEEP (10) DEPRESSIONS OR BULGES (10) SLIDES (10) DEPRESSIONS OR BULGES (10) SLIDES (10) STEEP (10) DEPRESSIONS OR BULGES (10) SLIDES (10) SLIDES (10) STEEP (10) SLIDES (} 	UPSTREAM SLOPE	ACCEPTARI F	POOR
PROBLEMS ☐ (15) NOT	NOTED: (10) NONE (11) RUTS OR PUDDLES (12) EROSION (13) CRACKS - WITH DISPLACEMENT (14) SII WIDE ENOUGH (16) LOW AREA (17) MISALIGNMENT (18) INADEQUATE SURFACE DRAINAGE ER S: SOME MINOR LOW SPOTS; WHEN REPAIRING DAM, ENSURE CREST IS GRADED TOWARDS US SLOPE	NKHOLES	CREST	ACCEPTARI F	
☐ (24) SINKI☐ (29) OTHE COMMENTS	NOTED: □ (20) NONE □ (21) LIVESTOCK DAMAGE □ (22) EROSION OR GULLIES □ (23) CRACKS - WITH DISPLACEMENT (CHOLE □ (25) APPEARS TOO STEEP □ (26) DEPRESSION OR BULGES □ (27) SLIDE □ (28) SOFT AREAS ER ANIMAL BURROWS 3: BERM HAS RUTS AND IS GRADED TOWARDS US SLOPE, WHICH CAUSES IT TO RETAIN WATER; NUMEROUS SOFT SPOTS; ONE TROUBLESOME DEPRESSION AY FOR SPILLWAY CONDUIT	NT ON RUNNING	DOWNSTREAM SLOPE	ACCEPTARI F	Poor
PROBLEMS N (33) SEEP/ DRAIN OUTF/ (39) OTHE	NOTED: □ (30) NONE ☑ (31) SATURATED EMBANKMENT AREA ☑ (32) SEEPAGE EXITS ON EMBANKMENT AGE EXITS AT POINT SOURCE ☑ (34) SEEPAGE AREA AT TOE ☑ (35) FLOW ADJACENT TO OUTLET □ (36) SEEPAGE INCRE ALLS SEEN □ NO ☑ YES □ (37) FLOW INCREASED/MUDDY □ (38) DRAIN DRY/OBSTRUCTED ER NUMEROUS AREAS WITH STANDING WATER. MULTIPLE SATURATED AREAS PRESENT ON THE DOWNSTREAM SLOPE AND TOE		SEEPAGE	ACCEPTARI F	
☐ (44) UPSTI INTERIOR INS ☐ (48) VALVE ☐ (49) OTHE COMMENTS:	NOTED: (40) NONE (41) NO OUTLET FOUND (42) POOR OPERATING ACCESS (43) INOPERABLE REAM OR DOWNSTREAM STRUCTURE DETERIORATED (45) OUTLET OPERATED DURING INSPECTION NO YES SPECTED (120) NO (121) YES (46) CONDUIT DETERIORATED OR COLLAPSED (47) JOINTS DISPLACED E LEAKAGE DRAIN OUTFALLS SEEN NO YES R HEAVY EROSION WE IDENTIFIED A HOLE IN THE CONDUIT LAST YEAR; AGFC IS IN PROCESS OF DRAINING LAKE TO SLIP-LINE CONDUIT; CATCH BASIN WAS DISLODGED FROM CONTERNIS OUT AROUND THE CONDUIT, WILL ADVISE AGFC TO MONITOR CLOSELY FOR WASHOUT	DUIT	OUTLET	ACCEPTABLE O	Poor
(53) CRAC (56) INAD (59) OTHE	NOTED: (50) NONE (51) NO EMERGENCY SPILLWAY FOUND (52) EROSION WITH BACKCUTTING (54) APPEARS TO BE STRUCTURALLY INADEQUATE (55) APPEARS TOO SMALL (57) FLOW OBSTRUCTED (58) CONCRETE DETERIORATED/UNDERMINED (57) FLOW OBSTRUCTED (58) CONCRETE DETERIORATED/UNDERMINED (58) CONCRETE DETERIORATED/UNDERMINED (58) CONCRETE DETERIORATED/UNDERMINED (58) CONCRETE DETERIORATED/UNDERMINED (59) EROSION WITH BACKCUTTING (50) APPEARS TOO SMALL (51) APPEARS TOO SMALL (51) APPEARS TOO SMALL (51) APPEARS TOO SMALL (52) EROSION WITH BACKCUTTING (53) APPEARS TOO SMALL (54) APPEARS TOO SMALL (55) APPEARS TOO SMALL (57) FLOW OBSTRUCTED (58) CONCRETE DETERIORATED/UNDERMINED (58) CONCRETE DETERI		SPILLWAY	ACCEPTARI F	Poor

INSPECTED BY

	EXISTING INSTURMENTATION FOUND: (110) NONE (111) GAGE ROD (112) PIEZOMETERS (113) SEEPAGE WEIRS/FLUMES (114) SURVEY MONUMENTS (115) OTHER MONITORING OF INSTRUMENTATION: (116) NO (117) YES PERIODIC INSPECTIONS BY: (118) OWNER (119) ENGINEER COMMENTS: NO INSTRUMENTATION OR EVIDENCE OF MONITORING COULD BE LOCATED.	MONITORING	0000	ACCEPTABLE
& REPAIR	PROBLEMS NOTED: ☐ (60) NONE ☐ (61) ACCESS ROAD NEEDS MAINTENANCE ☐ (62) CATTLE DAMAGE ② (63) BRUSH ON UPSTREAM SLOPE, CREST, DOWNSTREAM, TOE ☑ (64) TREES ON UPSTREAM SLOPE, CREST, DOWNSTREAM SLOPE, TOE ② (65) RODENT ACTIVITY ON UPSTREAM SLOPE, CREST, DOWNSTREAM, SLOPE, TOE ☑ (66) DETERIORATED CONCRETE-FACING, OUTLET, SPILLWAY ☐ (67) GATE & OPERATING MECHANISM NEED MAINTENANCE ☑ (68) OTHER DRAINAGE BASIN PROBLEMS COMMENTS: AGFC IS CURRENTLY DRAINING THE LAKE TO MAKE REPAIRS TO SPILLWAY	MAINTENANCE & REPAIR	O 0005	ACCEPTABLE A
CONDITIONS	REMARKS: AGFC IS CURRENTLY DRAINING THE LAKE TO MAKE REPAIRS TO SPILLWAY Based on this Safety Inspection and recent file review, the overall condition is determined to be: (71) SATISFACTORY (72) CONDITIONALLY SATISFACTORY (73) UNSATISFACTORY	OVERALL CONDITIONS		ACCEPTABLE
The State Engineer by providing this dem sefety increation report does not	Leg by 38 pills are the properties of the proper			
D	SAFE STORAGE LEVEL RECOMMENDED AS A RESULT OF THIS INSPECTION (101) FULL STORAGE (102) CONDITIONAL FULL STORAGE OFFICIAL ORDER TO FOLLOW (103) RECOMMENDED RESTRICTION REASON FOR RESTRICTION:	OPE	EN —	
-	ICTIONS REQUIRED FOR CONDITIONAL FULL STORAGE OR CONTINUED STORAGE AT THE RESTRICTED LEVEL:			
	ingineer's Owner's Signature Signature DATE: 7/12/2017			

OWNER/OWNER'S REPRESENTATIVE

CONDITIONS OBSERVED - APPLIES TO UPSTEAM SLOPE, CREST, DOWNSTREAM SLOPE, OUTLET, SPILLWAY

GOOD

In general, this part of the structure has a near new appearance, and conditions observed in this are do not appear to threaten the safety of the dam.

ACCEPTABLE

Although general cross-section is maintained, surfaces may be irregular, eroded, rutted, spalled, or otherwise not in new condition. Conditions in this area do not currently appear to threaten the safety of the dam.

POOR

Conditions observed in this area appear to threaten the safety of the dam.

CONDITIONS OBSERVED - APPLIES TO SEEPAGE

GOOD

No evidence of uncontrolled seepage. No unexplained increase in flows from designed drains. All seepage is clear. Seepage conditions do not appear to threaten the safety of the dam.

ACCEPTABLE

Some seepage exists at areas other than the drain outfalls, or other designed drains. No unexplained increase in seepage. All seepage is clear. Seepage conditions observed do not currently appear to threaten the safety of the dam

POOR

Seepage conditions observed appear to threaten the safety of the dam. Examples:

- 1) Designed drain or seepage flows have increased without increase in reservior level.
- 2) Drain or seepage flows contain sediment,
- i.e., muddy water or particles in jar samples.
- 3) Widespread seepage, concentrated seepage or ponding appears to threaten the safety of the dam.

CONDITIONS OBSERVED - APPLIES TO MONITORING

GOOD

Instrumentation and monitoring described under acceptable are being exceeded, as described under comments in the report.

ACCEPTABLE

Instrumentation is provided in accordance with the rules. Special instrumentation and monitoring deemed necessary is provided. The owner monitors the dam and records data in accordance with the rules, and submits the data annually or more frequently if required.

POOR

Required instrumentation and monitoring are not provided or required periodic readings are not being made or unexplained changes in readings are not reacted to by the owner.

CONDITIONS OBSERVED - APPLIES TO MAINTENANCE AND REPAIR

GOOD

Owner has a plan for annual maintenance. Dam consistently receives effective on-going maintenance and repair.

ACCEPTABLE

Dam receives maintenance in accordance with a plan, but some maintenance items need to be addressed. No major repairs are required.

POOR

No annual maintenance plan in effect. Dan does not appear to receive adequate maintenance. One or more items needing maintenance or repair have begun to threaten the safety of the dam. Lack of maintenance prevents thorough inspection.

OVERALL CONDITIONS

SATISFACTORY

The safety inspection indicates no conditions that appear to threaten the safety of the dam and the dam is expected to perform satisfactorily under all design loading conditions.

CONDITIONALLY SATISFACTORY

The safety inspection indicates symptoms of structural distress (excessive seepage, evidence of major displacements, etc.) which if conditions worsen, could lead to the failure of the dam. Essential monitoring, inspection and maintenance must be performed as a requirement for conditinued full storage in the reservoir or storage at a reduced level. There are no requirements if maintained at the restricted level.

UNSATISFACTORY

No annual maintenance plan in effect. Dan does not appear to receive adequate maintenance. One or more items needing maintenance or repair have begun to threaten the safety of the dam. Lack of maintenance prevents thorough inspection.

SAFE STORAGE LEVEL

FULL STORAGE

Dam may be used to full capacity with no conditions attached.

CONDITIONAL FULL STORAGE

Dam may be used to full storage if certain monitoring, maintenance or operational conditions are met.

RESTRICTION

Dam may no be used to full capacity, but must be operated at some reduced level in the interest of public safety.

- CLASS 1 Loss of human life is expected in the event of failure of the dam.
- CLASS 2 Significant damage is expected in the event of failure of the dam, but no loss of human life is expected.
- CLASS 3-A small amount of damage is expected. Loss of human life and significant damage are not expected.
- CLASS 4 No loss of human is expected and damage will occur only to the dam owner's property.

DAM NAME Lake	pswood Lake Dam No.1 DATE OF INSPECTION 6/1 DATE OF LAST INSPECTION 7/1				_
OWNER NAME	Lakewood Improvement District 4 OWNER PHONE (501) 753-4937				_
CONTACT NAM CLASS <u>H</u> CURRENT RES	CONTACT PHONE (501) 753-4937 E Mr. Ken Sullivan	ZIP 72190 CREST WIDT	ГН	F	- - -
	DIRECTIONS: MARK AN X FOR CONDITIONS FOUND, GIVE LOCATION AND EXTENT WITH NUMBER REF FIELD CONDITIONS OBSERVED WATER LEVEL - BELOW DAM CREST FT BELOW SPILLWAY FT GAGE ROD GROUND MOISTURE CONDITION: DRY_X WET SNOWCOVER OTHER				
(3) CRAC	NOTED:	 	GOOD GOOD	ACCEPTABLE	Poor
□ (15) NOT	NOTED: ☐ (10) NONE ☑ (11) RUTS OR PUDDLES ☑ (12) EROSION ☐ (13) CRACKS - WITH DISPLACEMENT ☐ (14) SINI WIDE ENOUGH ☐ (16) LOW AREA ☐ (17) MISALIGNMENT ☐ (18) INADEQUATE SURFACE DRAINAGE ER Very little topsoil contributing to the lack of vegetation present.	KHOLES	CREST GOOD	ACCEPTABLE	Poor
□ (24) SINK □ (29) OTHE	NOTED: (20) NONE (21) LIVESTOCK DAMAGE (22) EROSION OR GULLIES (23) CRACKS - WITH DISPLACEMENT HOLE (25) APPEARS TOO STEEP (26) DEPRESSION OR BULGES (27) SLIDE (28) SOFT AREAS ER LILLIEU to no vegetation which is contributing to some erosion	т 	DOWNSTREAM SLOPE GOOD	ACCEPTABLE	Poor
PROBLEMS N (33) SEEP DRAIN OUTF (39) OTHE	NOTED: (30) NONE (31) SATURATED EMBANKMENT AREA (32) SEEPAGE EXITS ON EMBANKMENT AGE EXITS AT POINT SOURCE (34) SEEPAGE AREA AT TOE (35) FLOW ADJACENT TO OUTLET (36) SEEPAGE INCREA ALLS SEEN (37) FLOW INCREASED/MUDDY (38) DRAIN DRY/OBSTRUCTED Large seepage area in the vicinty of the cut through the core.		SEEPAGE GOOD	ACCEPTABLE	Poor
INTERIOR IN:	NOTED: (40) NONE (41) NO OUTLET FOUND (42) POOR OPERATING ACCESS (43) INOPERABLE REAM OR DOWNSTREAM STRUCTURE DETERIORATED (45) OUTLET OPERATED DURING INSPECTION NO YES SPECTED (120) NO (121) YES (46) CONDUIT DETERIORATED OR COLLAPSED (47) JOINTS DISPLACED E LEAKAGE DRAIN OUTFALLS SEEN NO YES R		GOOD	ACCEPTABLE	Poor
(53) CRAC (56) INAD (59) OTHE	NOTED:		SPILLWAY GOOD	ACCEPTABLE	Poor

	EXISTING INS	TURMENT	ATION FOUND: (110) NONE	□ (111) GAGE ROD	☑ (112) PIEZOMETERS	□ (113) SEEPAGE WEIRS/FLUMES		C	(
	MONITORING	OF INSTR	MENTS (115) OTHER UMENTATION: (116) NO (116)	1 (117) YES PERIODIC	NSPECTIONS BY: 🗖 (11:	8) OWNER 🛛 (119) ENGINEER	MONITORING	G005	ACCEPTABLE
& KEPAIK	☐ (63) BRUSH☐ (65) RODEN☐ (67) GATE 8	I ON UPST NT ACTIVIT & OPERATI	TY ON UPSTREAM SLOPE, CRES ING MECHANISM NEED MAINTEI	REAM, TOE	EES ON UPSTREAM SLOP E, TOE	MAGE PE, CREST, DOWNSTREAM SLOPE, TOE PRATED CONCRETE-FACING, OUTLET, SPILLWA	MAINTENANCE & REPAIR	0000	ACCEPTABLE
SNO	REMARKS: Se	eepage must b	be addressed. Areas that lack vegetation shou	uld be reseeded and additional ripro	ap should be applied to the upstrear	m slope.		$\overline{}$) ©
CONDITIONS			ection and recent file review, the over the condition of				OVERALL CONDITIONS	G00D	ACCEPTABLE
i	I he state Engineer by providing this dam safety inspection report, does not assume responsibility for any unsafe condition of the subject dam. The sole responsibility for the safety of this dam rests with the reservior owner or operator, who should take every step necessary to prevent damages caused by leakage or overflow of waters from the reservoir or floods resulting from a failure of the dam.	☑ (80) □ (81) □ (82) □ (83) □ (84) □ (85) □ (86) □ (87) □ (88) □ (89) ENGINE (Plan & 3 □ (90) □ (91) □ (92) □ (93) □ (94) □ (95) □ (97) □ (98)	CLEAR TREES AND/OR BRUSH INITIATE RODENT CONTROL PR GRADE CREST TO A UNIFORM I PROVIDE SURFACE DRAINAGE MONITOR: DEVELOP AND SUBMIT AN EME OTHER: ERING - EMPLOY AN ENGINEER Specification must be approved by PREPARE PLANS & SPECIFICAT PREPARE AS-BUILT DRAWINGS PERFORM A GEOTECHNICAL IN PERFORM A HYDROLOGIC STU PREPARE PLANS & SPECIFICAT SET UP A MONITORING SYSTEM PERFORM AN INTERNAL INSPEOTHER:	T GATES THROUGH FULL FROM: COGRAM & PROPERLY BA ELEVATION WITH DRAINA FOR: RGENCY ACTION PLAN: EXPERIENCED IN DESIG State Engineer prior to con TIONS FOR THE REHABIL OF: IVESTIGATION TO EVALU DY TO DETERMINE REGU TIONS FOR AN ADEQUATI M INCLUDING WORK SHE CTION OF THE OUTLET:	CKFILL EXISTING HOLES GE TO THE UPSTREAM S ON & CONSTRUCTION OF Struction) ITATION OF THE DAM: ATE THE STABILITY OF TI JIRED SPILLWAY SIZE: E SPILLWAY: ETS, REDUCED DATA & G	HE DAM:			
	DEASON FOR DE	□ (10 □ (10	11) FULL STORAGE 12) CONDITIONAL FULL STORAC 13) RECOMMENDED RESTRICTI	RESTRICT GE OFFICIAL ORDI ON —	-	FT BELOW DAMS CRESTFT BELOW SPILLWAY CRESTFT GAGE HEIGHTNO STORAGE-MAINTAIN OUTLET FULI	LY OPE	EN —	
-			ON:CONDITIONAL FULL STORAGE (_
	Engineer's Signature			Owner's Signature		DATE: 7/11/18	3		<u> </u>
			INSPECTED BY		OWNER/OWNER'S R	EPRESENTATIVE			

CONDITIONS OBSERVED - APPLIES TO UPSTEAM SLOPE, CREST, DOWNSTREAM SLOPE, OUTLET, SPILLWAY

GOOD

In general, this part of the structure has a near new appearance, and conditions observed in this are do not appear to threaten the safety of the dam.

ACCEPTABLE

Although general cross-section is maintained, surfaces may be irregular, eroded, rutted, spalled, or otherwise not in new condition. Conditions in this area do not currently appear to threaten the safety of the dam.

POOR

Conditions observed in this area appear to threaten the safety of the dam.

CONDITIONS OBSERVED - APPLIES TO SEEPAGE

GOOD

No evidence of uncontrolled seepage. No unexplained increase in flows from designed drains. All seepage is clear. Seepage conditions do not appear to threaten the safety of the dam.

ACCEPTABLE

Some seepage exists at areas other than the drain outfalls, or other designed drains. No unexplained increase in seepage. All seepage is clear. Seepage conditions observed do not currently appear to threaten the safety of the dam

POOR

Seepage conditions observed appear to threaten the safety of the dam. Examples:

- 1) Designed drain or seepage flows have increased without increase in reservior level.
- 2) Drain or seepage flows contain sediment,
- i.e., muddy water or particles in jar samples.
- 3) Widespread seepage, concentrated seepage or ponding appears to threaten the safety of the dam.

CONDITIONS OBSERVED - APPLIES TO MONITORING

GOOD

Instrumentation and monitoring described under acceptable are being exceeded, as described under comments in the report.

ACCEPTABLE

Instrumentation is provided in accordance with the rules. Special instrumentation and monitoring deemed necessary is provided. The owner monitors the dam and records data in accordance with the rules, and submits the data annually or more frequently if required.

POOR

Required instrumentation and monitoring are not provided or required periodic readings are not being made or unexplained changes in readings are not reacted to by the owner.

CONDITIONS OBSERVED - APPLIES TO MAINTENANCE AND REPAIR

GOOD

Owner has a plan for annual maintenance. Dam consistently receives effective on-going maintenance and repair.

ACCEPTABLE

Dam receives maintenance in accordance with a plan, but some maintenance items need to be addressed. No major repairs are required.

POOR

No annual maintenance plan in effect. Dan does not appear to receive adequate maintenance. One or more items needing maintenance or repair have begun to threaten the safety of the dam. Lack of maintenance prevents thorough inspection.

OVERALL CONDITIONS

SATISFACTORY

The safety inspection indicates no conditions that appear to threaten the safety of the dam and the dam is expected to perform satisfactorily under all design loading conditions.

CONDITIONALLY SATISFACTORY

The safety inspection indicates symptoms of structural distress (excessive seepage, evidence of major displacements, etc.) which if conditions worsen, could lead to the failure of the dam. Essential monitoring, inspection and maintenance must be performed as a requirement for conditinued full storage in the reservoir or storage at a reduced level. There are no requirements if maintained at the restricted level.

UNSATISFACTORY

No annual maintenance plan in effect. Dan does not appear to receive adequate maintenance. One or more items needing maintenance or repair have begun to threaten the safety of the dam. Lack of maintenance prevents thorough inspection.

SAFE STORAGE LEVEL

FULL STORAGE

Dam may be used to full capacity with no conditions attached.

CONDITIONAL FULL STORAGE

Dam may be used to full storage if certain monitoring, maintenance or operational conditions are met.

RESTRICTION

Dam may no be used to full capacity, but must be operated at some reduced level in the interest of public safety.

- CLASS 1 Loss of human life is expected in the event of failure of the dam.
- CLASS 2 Significant damage is expected in the event of failure of the dam, but no loss of human life is expected.
- CLASS 3- A small amount of damage is expected. Loss of human life and significant damage are not expected.
- CLASS 4 No loss of human is expected and damage will occur only to the dam owner's property.

DAM NAME PEBBLE LAKE DAM PERMIT #416 DATE OF INSPECTION 1/25/20 DAM ID 00014 DATE OF LAST INSPECTION 6/12/20				_
CONTACT NAME MRS. DONNA COOK CONTACT PHONE 501.794.2564	IP 72089 REST WIDT	H_N/A	F	- - T
DIRECTIONS: MARK AN X FOR CONDITIONS FOUND, GIVE LOCATION AND EXTENT WITH NUMBER REFERING FIELD CONDITIONS OBSERVED WATER LEVEL - BELOW DAM CREST5	ENCE			
PROBLEMS NOTED: (0) NONE (1) RIPRAP - MISSING, SPARSE, DISPLACED, WEATHERED (2) WAVE EROSION-WITH SCARPS (3) CRACKS WITH DISPLACEMENT (4) SINKHOLE (5) APPEARS TOO STEEP (6) DEPRESSIONS OR BULGES (7) SLIDES (8) CONCRETE FACING-HOLES, CRACKS, DISPLACED, UNDERMINED (9) OTHER ANIMAL BORROWS COMMENTS: NO RIP-RAP OR PROTECTIVE COVER HAS LED TO WAVE EROSION WITH SMALL SCARPS; APPEARS TO STEEP (ESPECIALLY ON RIGHT SIDE)		GOOD GOOD	ACCEPTABLE	Poor
PROBLEMS NOTED: (10) NONE (11) RUTS OR PUDDLES (12) EROSION (13) CRACKS - WITH DISPLACEMENT (14) SINKHO (15) NOT WIDE ENOUGH (16) LOW AREA (17) MISALIGNMENT (18) INADEQUATE SURFACE DRAINAGE (19) OTHER (20) OTHER	DLES	GOOD GOOD	ACCEPTABLE	Poor
PROBLEMS NOTED: (20) NONE (21) LIVESTOCK DAMAGE (22) EROSION OR GULLIES (23) CRACKS - WITH DISPLACEMENT (24) SINKHOLE (25) APPEARS TOO STEEP (26) DEPRESSION OR BULGES (27) SLIDE (28) SOFT AREAS (29) OTHER (29) OTHER (20)		GOOD GOOD	ACCEPTABLE	Poor
PROBLEMS NOTED: ☐ (30) NONE ☐ (31) SATURATED EMBANKMENT AREA ☐ (32) SEEPAGE EXITS ON EMBANKMENT ☐ (33) SEEPAGE EXITS AT POINT SOURCE ☐ (34) SEEPAGE AREA AT TOE ☐ (35) FLOW ADJACENT TO OUTLET ☐ (36) SEEPAGE INCREASE	ED/MUDDY	GOOD	ACCEPTABLE	Poor
DIANN OUTFALLS SEENNO			ACCE	<u>•</u>
PROBLEMS NOTED: (40) NONE (41) NO OUTLET FOUND (42) POOR OPERATING ACCESS (43) INOPERABLE (44) UPSTREAM OR DOWNSTREAM STRUCTURE DETERIORATED (45) OUTLET OPERATED DURING INSPECTION NO LYES INTERIOR INSPECTED (120) NO (121) YES (46) CONDUIT DETERIORATED OR COLLAPSED (47) JOINTS DISPLACED (48) VALVE LEAKAGE DRAIN OUTFALLS SEEN NO LYES (49) OTHER COMMENTS: PRINCIPAL SPILLWAY DECOMMISSIONED AND SEEPAGE EMERGING OVER DECOMMISSIONED PIPE ON DS SLOPE NEAR TOE OF DAM		GOOD	ACCEPTABLE	POOR
PROBLEMS NOTED: ☐ (50) NONE ☐ (51) NO EMERGENCY SPILLWAY FOUND ☐ (52) EROSION WITH BACKCUTTING ☐ (53) CRACK - WITH DISPLACEMENT ☐ (54) APPEARS TO BE STRUCTURALLY INADEQUATE ☐ (55) APPEARS TOO SMALL ☐ (56) INADEQUATE FREEBOARD ☐ (57) FLOW OBSTRUCTED ☐ (58) CONCRETE DETERIORATED/UNDERMINED ☐ (59) OTHER ☐ (59) OTHER ☐ (50) COMMENTS:	XXXX	SPILLWAY GOOD	ACCEPTABLE	Poor

☐ (114) S MONITOR	INSTURMENTATION FOUND: (110) NONE (111) GAGE ROD (112) PIEZOMETERS (113) SEEPAGE WEIRS/FLUMES URVEY MONUMENTS (115) OTHER ING OF INSTRUMENTATION: (116) NO (117) YES PERIODIC INSPECTIONS BY: (118) OWNER (119) ENGINEER	C	DE BLE
	URVEY MONUMENTS (115) OTHER ING OF INSTRUMENTATION: (116) NO (117) YES PERIODIC INSPECTIONS BY: (118) OWNER (119) ENGINEER TS:	G005	ACCEPTABLE
☐ (63) BI ☐ (65) R ☐ (67) G	IS NOTED: (60) NONE (61) ACCESS ROAD NEEDS MAINTENANCE (62) CATTLE DAMAGE USH ON UPSTREAM SLOPE, CREST, DOWNSTREAM, TOE (64) TREES ON UPSTREAM SLOPE, CREST, DOWNSTREAM SLOPE, TOE (66) DETERIORATED CONCRETE-FACING, OUTLET, SPILLWAY TE & OPERATING MECHANISM NEED MAINTENANCE (68) OTHER TS: (78)	0000	ACCEPTABLE
REMARK	POA PLANS TO ADD SIPHON TO REPLACE DECOMMISSIONED PRINCIPAL SPILLWAY CONDUIT, BUT ARE SLOW TO MAKE PROGRESS;	C	•
ģ	S: POA PLANS TO ADD SIPHON TO REPLACE DECOMMISSIONED PRINCIPAL SPILLWAY CONDUIT, BUT ARE SLOW TO MAKE PROGRESS; this Safety Inspection and recent file review, the overall condition is determined to be: TISFACTORY (72) CONDITIONALLY SATISFACTORY (73) UNSATISFACTORY	G00D	ACCEPTABLE
The State Engineer by providing this dam safety inspection report, does not assume responsibility for any unsafe condition of the subject dam. The sole responsibility for the safety of this dam rests with the reservior owner or operator, who should take every step necessary to prevent damages caused by leakage or			
	SAFE STORAGE LEVEL RECOMMENDED AS A RESULT OF THIS INSPECTION (101) FULL STORAGE (102) CONDITIONAL FULL STORAGE OFFICIAL ORDER TO FOLLOW (103) RECOMMENDED RESTRICTION RESTRICTED LEVEL OFFICIAL ORDER TO FOLLOW OFFICIAL ORDER TO FOLLOW NO STORAGE-MAINTAIN OUTLET FULLY OPE	EN —	
	R RESTRICTION:		
Engineer's	Owner's		<u> </u>
•	SignatureDATE: 1/25/2018 INSPECTED BY OWNER/OWNER'S REPRESENTATIVE		

CONDITIONS OBSERVED - APPLIES TO UPSTEAM SLOPE, CREST, DOWNSTREAM SLOPE, OUTLET, SPILLWAY

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POOR

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OVERALL CONDITIONS

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- CLASS 4 No loss of human is expected and damage will occur only to the dam owner's property.

National Operation & Maintenance Manual

U.S. Department of Agriculture Natural Resources Conservation Service

WATERSHED STRUCTURE INSPECTION REPORT

Date of Inspection March 2016						
County Poinsett	Watershed	Poins	ett	Site_16	_	
Field Office Harrisburg			Sponsor_Poinsett Watershed Improvement	District		
Legal Description, SecTRR						
"YES" responses need explanation added to "Remarks "NO" responses indicate problems not observed during Non-applicable items should be lined out.			hat? Where? Extent?)			
ITEM	YES	NO	REMARKS			
1. General Conditions						
a. Alterations to dam?		✓				
b. Development in downstream floodplain?		✓				
c. Development around reservoir?		✓				
2. Embankment						
a. Is vegetative cover inadequate?		✓				
b. Are trees growing on either slope?		✓				
c. Is brush/weed control needed?		✓				
d. Are trees growing at waterline?		✓				
e. Is drift debris present?		✓				
f. Are cracks, settlement, or bulges present?		✓				
g. Are animal burrows present?		✓				
h. Are trails present?		✓				
3. Front Slope Protection						
a. Any wave damage observed?		✓				
b. Is riprap inadequate?		✓				
c. Are rodent holes present?		✓				
4. Inlet Structure and Gate Valves						
a. Does concrete exhibit deterioration?		✓				
b. Is concrete reinforcement exposed?		✓				
c. Was leakage observed inside inlet?		✓				
d. Any corrosion of metal appurtenances?		✓				
e. Is debris guard obstructed?		✓				
f. Is debris guard corroded?		✓				
g. Is gate stem broken or bent?		✓				
h. Are components missing?		✓				
i. Was gate determined not operational?		✓	Date gate last operated: Not sure			
j. Has inlet been modified to alter water surface?		✓				
5. Principal Spillway Conduit						
a. Is concrete conduit deteriorated?		✓				
b. Is metal conduit corroded?	\longrightarrow	✓				
c. Was leakage observed at pipe joints?		✓				

National Operation & Maintenance Manual

ITEM	YES NO	REMARKS
6. Auxiliary Spillway		
a. Is vegetative cover inadequate?	✓	
b. Any animal trails observed?	✓	
c. Any vehicular trails observed?	✓	
d. Is flow area obstructed?	✓	
e. Is control section disturbed?	✓	
7. Principal Spillway Release Channel		
a. Does scour hole appear unstable?	✓	
b. Any boils observed?	✓	
c. Is riprap inadequate?	✓	
d. Any seepage observed?	✓	
e. Is conduit outlet submerged?	✓	
f. Is conduit outlet not properly supported?	✓	
g. Is outlet channel obstructed?	✓	
h. Is outlet channel degrading?	✓	
i. Is foundation drain submerged?	✓	
j. Is foundation drain rodent barrier missing?	✓	
k. Is foundation drain not functional?	✓	
8. Perimeter Fence	1 1	_
a. Is fence inadequate?	√	
b. Are gates open?	✓	
9. Easements/landrights		
a. Are terms of landrights out of compliance?	√	
b. Are landrights boundaries being encroached upon?		 nonths by sponsors and/or NRCS, including approximate cost and
ACTIONS MEEDED. (II) 425. it was been in it. Lea		
ACTIONS NEEDED: (Identify items by priority: low-		
(Indicate date assistance reques	tea; tecnni	cai of linancial).
None		
		/s/ Craig Roach, Civil Engineer
		/s/ Craig Roach, Civil Engineer
Sponsor Representative		/s/ Craig Roach, Civil Engineer
Sponsor Representative (Adapted from Oklahoma NRCS)		/s/ Craig Roach, Civil Engineer NRCS Representative

NAME Sherwood Lake Dam Permit #29	DATE OF INSPECTION 8/22/2019		
D AR00255 ER NAME Woodland Hills POA	DATE OF LAST INSPECTION 6/28/2018 OWNER PHONE		
ESS P.O. Box 161, Hardy, AR	ZIP 72542		
ACT NAME Jason Jackson S.H. CAPACITY 1500 AF SURFACE AREA 66 AC HE IENT RESTRICTION (NO) (YES) LEVEL EAP OF CETION PARTY REPRESENTING JACKSON PRUSS, ANRC; STEPHEN SMEDLEY, ANRC	CONTACT PHONE (870) 219-5562 EIGHT 51 FT CREST LENGTH 1026 FT CREST W N FILE (NO) (YES)	/IDTH	F
FIELD CO	VE LOCATION AND EXTENT WITH NUMBER REFERENCE ONDITIONS OBSERVED OW SPILLWAYFT GAGE ROD VCOVER OTHER Built 1963		
PROBLEMS NOTED: (0) NONE (1) RIPRAP - MISSING, SPARSE, DISPLACE (3) CRACKS WITH DISPLACEMENT (4) SINKHOLE (5) APPEARS TOO ST (8) CONCRETE FACING-HOLES, CRACKS, DISPLACED, UNDERMINED (9) OT	EEP	UPSTREAM SLOPE GOOD	ACCEPTABLE
PROBLEMS NOTED: (10) NONE (11) RUTS OR PUDDLES (12) EROSIC (15) NOT WIDE ENOUGH (16) LOW AREA (17) MISALIGNMENT (18)	INADEQUATE SURFACE DRAINAGE	CREST GOOD	ACCEPTABLE
PROBLEMS NOTED: (20) NONE (21) LIVESTOCK DAMAGE (22) EROS (24) SINKHOLE (25) APPEARS TOO STEEP (26) DEPRESSION OR BULG (29) OTHER EXCESS VEGETATION & ANIMAL BURROWS COMMENTS; EXCESSIVE VEGETATION ON LEFT ABUTMENT MADE A THOROUGH INSPECTION INPOSSIBLE.	ES □ (27) SLIDE ☑ (28) SOFT AREAS	DOWNSTREAM SLOPE GOOD	ACCEPTABLE
ROBLEMS NOTED: (30) NONE (31) SATURATED EMBANKMENT AREA (33) SEEPAGE EXITS AT POINT SOURCE (34) SEEPAGE AREA AT TOE (35) GAIN OUTFALLS SEEN (NO VYES (37) FLOW INCREASED/MUDDY (36) (39) OTHER OMMENTS: RIGHT ABUTMENT HAD SEEPAGE EXITS FROM MULTIPLE POINT SOURCES/SIGNIFICANT A EASURE FLOW-RATE (CHECKED REGULARLY BY DAVID HAWKINS FROM P.O.A.); WATER IS NOW FLOWING ARE	(36) SEEPAGE INCREASED/MUDDY B) DRAIN DRY/OBSTRUCTED MOUNT OF SEEPAGE; SEEPAGE BEING CHANNELED INTO WEIR USED TO	SEEPAGE GOOD	ACCEPTABLE
ROBLEMS NOTED: (40) NONE (41) NO OUTLET FOUND (42) POOR O (44) UPSTREAM OR DOWNSTREAM STRUCTURE DETERIORATED (45) OUTLET TERIOR INSPECTED (120) NO (121) YES (46) CONDUIT DETERIORATE (48) VALVE LEAKAGE DRAIN OUTFALLS SEEN NO YES (49) OTHER OMMENTS: THE OUTLET VALVE WAS TURNED OFF. HOWEVER WATER WAS STILL FLOWING THROUGH	OPERATED DURING INSPECTION □ NO □ YES D OR COLLAPSED □ (47) JOINTS DISPLACED	OUTLET GOOD	ACCEPTABLE
		SOOD) Щ

REASON FOR RESTRICTION: _

INSPECTED BY

Engineer's

Signature_

☐ (114) SURVEY MONUMENTS ☐ (115) OTHER

COMMENTS: REGULAR MONITORING OF DAM BY DAVID HAWKINS OF POA

OWNER/OWNER'S REPRESENTATIVE

EXISTING INSTURMENTATION FOUND: 🗖 (110) NONE 💆 (111) GAGE ROD 🗖 (112) PIEZOMETERS 📮 (113) SEEPAGE WEIRS/FLUMES

MONITÓRING OF INSTRUMENTATION: 🗖 (116) NO 🗷 (117) YES PERIODIC INSPECTIONS BY: 🗷 (118) OWNER 🗖 (119) ENGINEER

MAINTENANCE & REPAIR		OTED: (60) NONE (61) ACCESS ROAD NEEDS MAINTENANCE (62) CATTLE DAMAGE (ON UPSTREAM SLOPE, CREST, DOWNSTREAM, TOE (ON UPSTREAM SLOPE, CREST, DOWNSTREAM, TOE (ON UPSTREAM SLOPE, CREST, DOWNSTREAM, SLOPE, TOE (ON UPS
NS NS		
OVERALL		Safety Inspection and recent file review, the overall condition is determined to be:
CON		ACTORY □ (72) CONDITIONALLY SATISFACTORY □ (73) UNSATISFACTORY
7	The state Engineer by proviouing his dain safety inspection lepon, uses not assume responsibility for any unsafe condition of the subject dam. The sole responsibility for the safety of this dam rests with the reservior owner or operator, who should take every step necessary to prevent damages caused by leakage or overflow of waters from the reservoir or floods resulting from a failure of the dam.	ITEMS REQUIRING ACTION BY OWNER TO IMPROVE THE SAFETY OF THE DAM MAINTENANCE - MINOR REPAIR - MONITORING (80) PROVIDE ADDITIONAL RIPRAP: (81) LUBRICATE & OPERATE OUTLET GATES THROUGH FULL CYCLE:
- -	t, doe n. The vner o ed by ilure c	☑ (82) CLEAR TREES AND/OR BRUSH FROM: D/S SLOPES ☑ (83) INITIATE RODENT CONTROL PROGRAM & PROPERLY BACKFILL EXISTING HOLES: D/S SLOPE
Ğ	t dan tr dan ior ov caus caus	(84) GRADE CREST TO A UNIFORM ELEVATION WITH DRAINAGE TO THE UPSTREAM SLOPE:
	abject servi	Ø (85) PROVIDE SURFACE DRAINAGE FOR: SEEPAGE Ø (86) MONITOR: SEEPAGE ON RIGHT AND LEFT ABUTMENTS
9	spectors and spectors are related to the spectors and spectors are related to the spec	☑ (87) DEVELOP AND SUBMIT AN EMERGENCY ACTION PLAN:
2.	of the of the series results	□ (88) OTHER:
ojca	sale ition its w oreve	□ (89) OTHER:
2	ond sond res rog	(Plan & Specification must be approved by State Engineer prior to construction)
. <u></u>	afe c afe c dan dan san)	☑ (90) PREPARE PLANS & SPECIFICATIONS FOR THE REHABILITATION OF THE DAM:
÷	uns; uns; this eces eces	□ (91) PREPARE AS-BUILT DRAWINGS OF:
:	any any y of p n	□ (92) PERFORM A GEOTECHNICAL INVESTIGATION TO EVALUATE THE STABILITY OF THE DAM: □ (93) PERFORM A HYDROLOGIC STUDY TO DETERMINE REQUIRED SPILLWAY SIZE:
2	y pri	(93) PERFORM A NTOROLOGIC STUDY TO DETERMINE REQUIRED SPILLWAY SIZE. (94) PREPARE PLANS & SPECIFICATIONS FOR AN ADEQUATE SPILLWAY:
Š	the proviouing time or ibility for any unsafe or the safety of this dam every step necessary is from the reservoir or is from the reservoir or the proviection of the proviection of the proviection or the proviection of the	(95) SET UP A MONITORING SYSTEM INCLUDING WORK SHEETS, REDUCED DATA & GRAPHED RESULTS:
	onsi onsi onsi ake ake	☑ (96) PERFORM AN INTERNAL INSPECTION OF THE OUTLET:
ц	resp billity uld t	□ (97) OTHER:
T od T	The state Engineer by providing this dail safety hispectaon report, upos not assume responsibility for any unsafe condition of the subject dam. The sole responsibility for the safety of this dam rests with the reservior owner or ope who should take every step necessary to prevent damages caused by leaka overflow of waters from the reservoir or floods resulting from a failure of the	□ (98) OTHER: □ (99) OTHER:
		SAFE STORAGE LEVEL RECOMMENDED AS A RESULT OF THIS INSPECTION FT BELOW DAMS CREST
		□ (101) FULL STORAGE

ACTIONS REQUIRED FOR CONDITIONAL FULL STORAGE OR CONTINUED STORAGE AT THE RESTRICTED LEVEL:

Owner's Signature

	_	_		1
SEEPAGE WEIRS/FLUMES	(D	\bigcirc	$oldsymbol{\odot}$	
ER	MONITORING	G005	ACCEPTABLE	
ST, DOWNSTREAM SLOPE, TOE	REPAIR	0	•	(
CONCRETE-FACING, OUTLET, SPILLWAY	MAINTENANCE & RE	G005	ACCEPTABLE	1 1 1
	NS	O	0	
	OVERALL CONDITIO	G005	ACCEPTABLE	
OPE TO:				
D RESULTS:				
ECTION _FT BELOW DAMS CREST _FT BELOW SPILLWAY CREST _FT GAGE HEIGHT _NO STORAGE-MAINTAIN OUTLET FULLY	OPE	:N 		
DATE: 6/28/2018			_	

CONDITIONS OBSERVED - APPLIES TO UPSTEAM SLOPE, CREST, DOWNSTREAM SLOPE, OUTLET, SPILLWAY

GOOD

In general, this part of the structure has a near new appearance, and conditions observed in this are do not appear to threaten the safety of the dam.

ACCEPTABLE

Although general cross-section is maintained, surfaces may be irregular, eroded, rutted, spalled, or otherwise not in new condition. Conditions in this area do not currently appear to threaten the safety of the dam.

POOR

Conditions observed in this area appear to threaten the safety of the dam.

CONDITIONS OBSERVED - APPLIES TO SEEPAGE

GOOD

No evidence of uncontrolled seepage. No unexplained increase in flows from designed drains. All seepage is clear. Seepage conditions do not appear to threaten the safety of the dam.

ACCEPTABLE

Some seepage exists at areas other than the drain outfalls, or other designed drains. No unexplained increase in seepage. All seepage is clear. Seepage conditions observed do not currently appear to threaten the safety of the dam

POOR

Seepage conditions observed appear to threaten the safety of the dam. Examples:

- 1) Designed drain or seepage flows have increased without increase in reservior level.
- 2) Drain or seepage flows contain sediment,
- i.e., muddy water or particles in jar samples.
- 3) Widespread seepage, concentrated seepage or ponding appears to threaten the safety of the dam.

CONDITIONS OBSERVED - APPLIES TO MONITORING

GOOD

Instrumentation and monitoring described under acceptable are being exceeded, as described under comments in the report.

ACCEPTABLE

Instrumentation is provided in accordance with the rules. Special instrumentation and monitoring deemed necessary is provided. The owner monitors the dam and records data in accordance with the rules, and submits the data annually or more frequently if required.

POOR

Required instrumentation and monitoring are not provided or required periodic readings are not being made or unexplained changes in readings are not reacted to by the owner.

CONDITIONS OBSERVED - APPLIES TO MAINTENANCE AND REPAIR

GOOD

Owner has a plan for annual maintenance. Dam consistently receives effective on-going maintenance and repair.

ACCEPTABLE

Dam receives maintenance in accordance with a plan, but some maintenance items need to be addressed. No major repairs are required.

POOR

No annual maintenance plan in effect. Dan does not appear to receive adequate maintenance. One or more items needing maintenance or repair have begun to threaten the safety of the dam. Lack of maintenance prevents thorough inspection.

OVERALL CONDITIONS

SATISFACTORY

The safety inspection indicates no conditions that appear to threaten the safety of the dam and the dam is expected to perform satisfactorily under all design loading conditions.

CONDITIONALLY SATISFACTORY

The safety inspection indicates symptoms of structural distress (excessive seepage, evidence of major displacements, etc.) which if conditions worsen, could lead to the failure of the dam. Essential monitoring, inspection and maintenance must be performed as a requirement for conditinued full storage in the reservoir or storage at a reduced level. There are no requirements if maintained at the restricted level.

UNSATISFACTORY

No annual maintenance plan in effect. Dan does not appear to receive adequate maintenance. One or more items needing maintenance or repair have begun to threaten the safety of the dam. Lack of maintenance prevents thorough inspection.

SAFE STORAGE LEVEL

FULL STORAGE

Dam may be used to full capacity with no conditions attached.

CONDITIONAL FULL STORAGE

Dam may be used to full storage if certain monitoring, maintenance or operational conditions are met.

RESTRICTION

Dam may no be used to full capacity, but must be operated at some reduced level in the interest of public safety.

- CLASS 1 Loss of human life is expected in the event of failure of the dam.
- CLASS 2 Significant damage is expected in the event of failure of the dam, but no loss of human life is expected.
- CLASS 3-A small amount of damage is expected. Loss of human life and significant damage are not expected.
- CLASS 4 No loss of human is expected and damage will occur only to the dam owner's property.