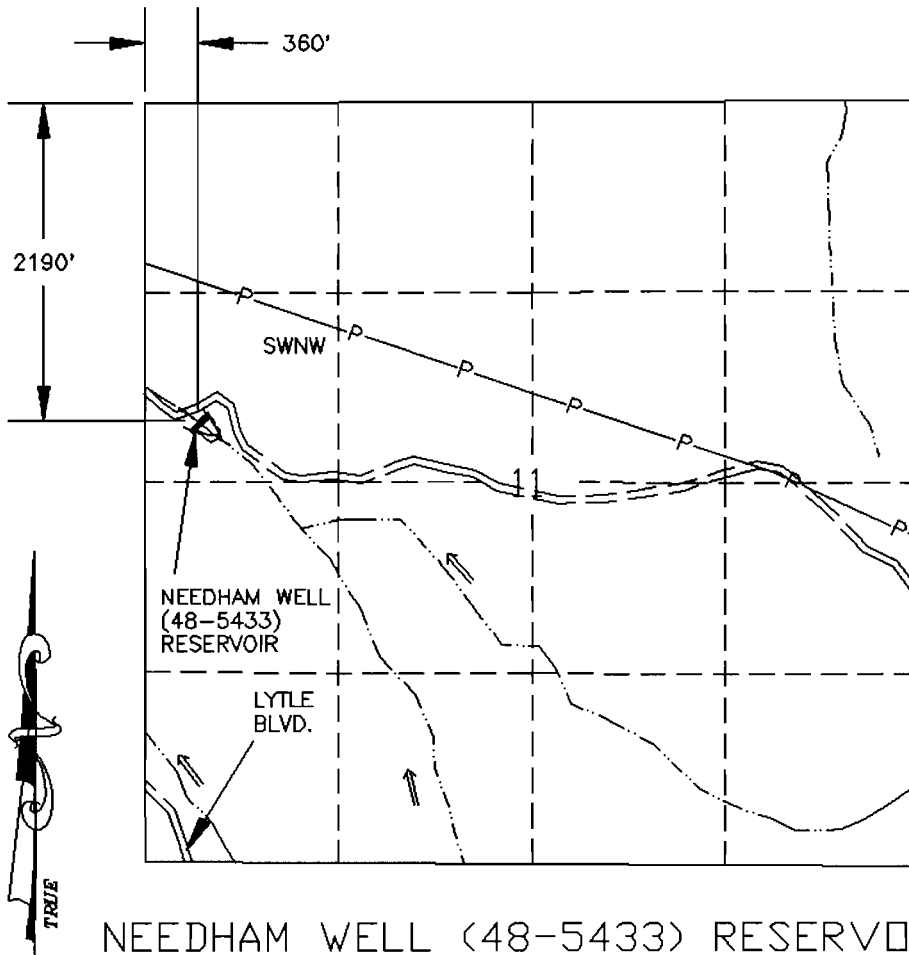


APPLICATION MAP FOR PERMIT TO CONSTRUCT A RESERVOIR

SW 1/4 NW 1/4 SEC 11 T 19S R 45E W.M.

U.S.G.S. QUAD - VALE EAST, OREG. - 7 1/2'



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OCT 04 1993

WATER RESOURCES DEPT.
SALEM, OREGON

LEGEND



RESERVOIR



ROAD

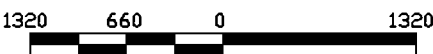
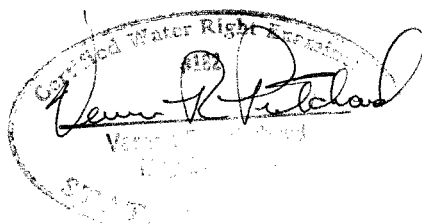


POWER LINE



CHANNEL

NEEDHAM WELL (48-5433) RESERVOIR



SCALE 1"=1320'

THIS MAP IS FOR THE PURPOSE OF LOCATING
A WATER RIGHT AND IS NOT INTENDED TO
PROVIDE LEGAL DIMENSIONS FOR LOCATION
OF PROPERTY BOUNDARIES.



ACAD RELEASE 11/DC
DWG FILE: NEEDHAM.DWG

UNITED STATES DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
DIVISION OF OPERATIONS VALE DISTRICT

NEEDHAM WELL (48-5433)
RESERVOIR

DESIGNED	<i>Henry R. Patchard</i>	
REVIEWED	<i>George D. House</i>	
APPROVED	CHIEF, BRANCH OF ENGINEERING	
DRAWN	CG	SCALE: 1"=1320'
DATE	04/23/93	SHEET 1 OF 1
DRAWING NO. OR-03-9172.45-252		

No. R-73704
Permit No.
2013
CERTIFICATE NO.

R-73704

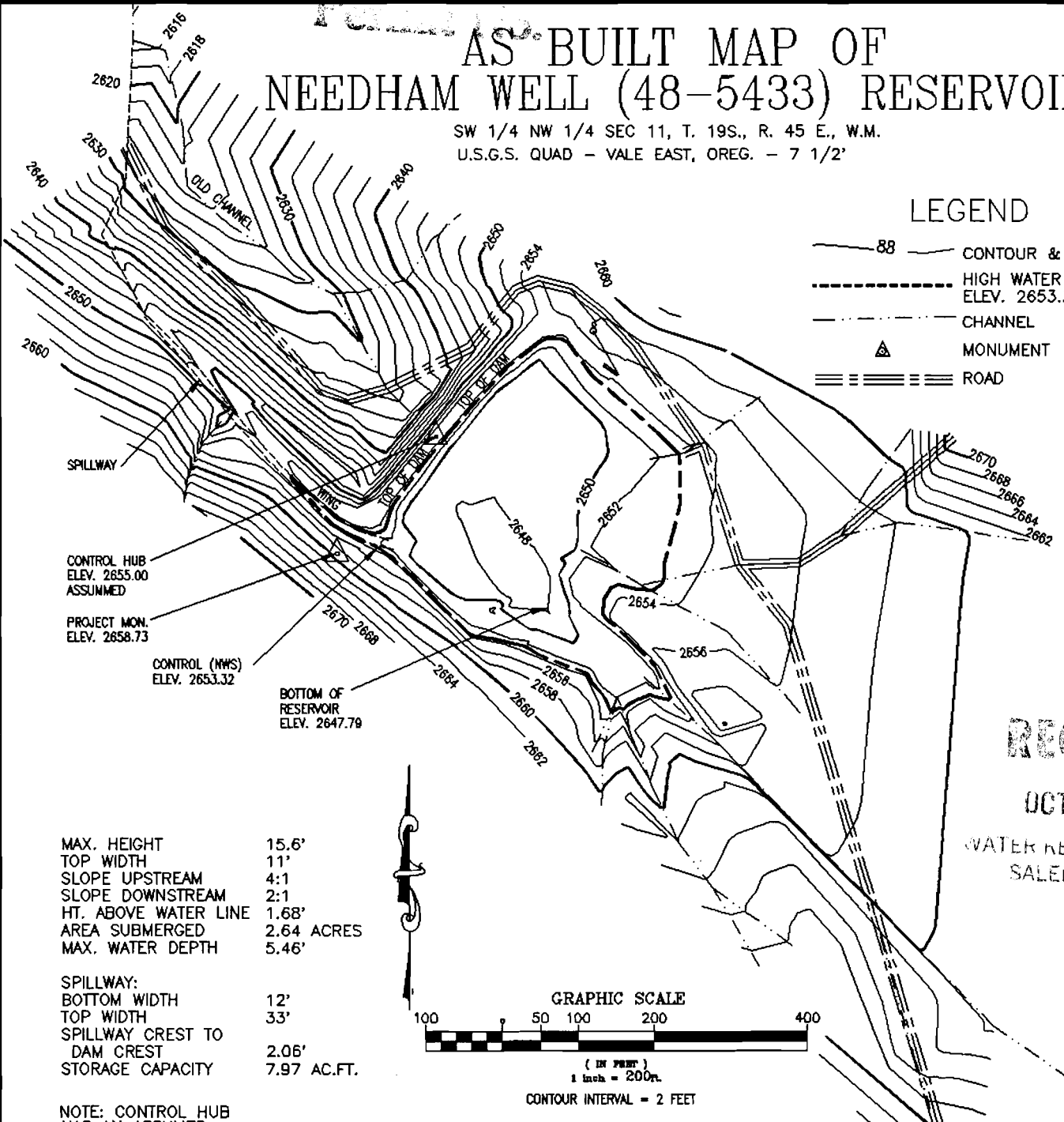
DATE NO. 0013

AS-BUILT MAP OF NEEDHAM WELL (48-5433) RESERVOIR

SW 1/4 NW 1/4 SEC 11, T. 19S., R. 45 E., W.M.
U.S.G.S. QUAD - VALE EAST, OREG. - 7 1/2'

LEGEND

- 88 — CONTOUR & ELEV
- - - - - HIGH WATER LINE
ELEV. 2653.32
- - - - - CHANNEL
- ▲ MONUMENT
- ==== ROAD



CONTROL HUB
ELEV. 2655.00
ASSUMED

PROJECT MON.
ELEV. 2658.73

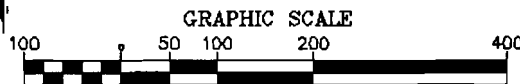
CONTROL (NWS)
ELEV. 2653.32

BOTTOM OF
RESERVOIR
ELEV. 2647.79

MAX. HEIGHT 15.6'
TOP WIDTH 11'
SLOPE UPSTREAM 4:1
SLOPE DOWNSTREAM 2:1
HT. ABOVE WATER LINE 1.68'
AREA SUBMERGED 2.64 ACRES
MAX. WATER DEPTH 5.46'

SPILLWAY:
BOTTOM WIDTH 12'
TOP WIDTH 33'
SPILLWAY CREST TO
DAM CREST 2.06'
STORAGE CAPACITY 7.97 AC.FT.

NOTE: CONTROL HUB
HAS AN ASSUMED
ELEVATION OF 2655.0 FROM
U.S.G.S. QUAD VALE EAST, OREG.



CONTOUR INTERVAL = 2 FEET



JDR NO: 48-5433
WATER RIGHTS
APP. NO.:
WATER RIGHTS
PERMIT NO.

ACAD 11/DCA
NEEDHAM.DWG

INSTALLATION OF AN OUTLET CONDUIT
WOULD THREATEN THE INTEGRITY OF THE
EXISTING STRUCTURE. SHOULD AN OUTLET
CONDUIT BE REQUIRED LATER FOR WATER
DISTRIBUTION NEEDS, IT WILL BE IN-
STALLED USING APPROPRIATE SAFEGUARDS
AND CONSTRUCTION TECHNIQUES, OR THE
STRUCTURE MAY BE BREACHED OR RE-
CONSTRUCTED.

RECEIVED

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WATER RESOURCES DEPT.
SALEM, OREGON

UNITED STATES DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
DIVISION OF OPERATIONS VALE DISTRICT

NEEDHAM WELL (48-5433) RESERVOIR AS BUILT

DESIGNED FIELD SURVEY 4/20/93 GRASTY & DONAHUE

REVIEWED

APPROVED

CHIEF, BRANCH OF ENGINEERING

DRAWN: C.G.

SCALE: 1"=200

DATE: 04/23/93

SHEET 1 OF 1

DRAWING NO. OR-03-9172.45-251