10426 THRU 10428
10430 THRU 10432

10426 THRU 10428
10430 THRU 10432

Diag. Cht. No. 6157 Insert

Form 504

U. S. DEPARTMENT OF COMMERCE

COAST AND GEODETIC SURVEY

DESCRIPTIVE REPORT

Type of Survey Shoreline (Photogrammetric)

Field No. Ph-63 *Office No.* T-10426 thru T-10428
T-10430 thru T-10432

LOCALITY

State Oregon and Washington

General locality Columbia River

Locality McNary Dam Reservoir from Umatilla to Juniper Canyon

19 54-56

CHIEF OF PARTY

V.R.Sobieralski, Chief of Field Party

LIBRARY & ARCHIVES

DATE June 6, 1950

USCOMM-OC 5087

DESCRIPTIVE REPORT - DATA RECORD

T - 10426 thru T-10428
T - 10430 thru T-10432

Project No. (II): 27020 Quadrangle Name (IV):

Field Office (II): Umatilla, Oregon

Chief of Party: V. Ralph Sobieralski
Unit Chief: Leonard F. Van Scoy

Photogrammetric Office (III): Portland, Oregon

Officer-in-Charge:

Instructions dated (II) (III): 20 March 1956 (Field and Office)

Copy filed in Division of Photogrammetry (IV)

Method of Compilation (III): Graphic

Manuscript Scale (III): 1:15,000

Stereoscopic Plotting Instrument Scale (III):

Scale Factor (III): None

Date received in Washington Office (IV): 4-2-57

Date reported to Nautical Chart Branch (IV):

Applied to Chart No.

Date:

Date registered (IV): 18 Aug 1957

Publication Scale (IV):

Publication date (IV):

Geographic Datum (III): N.A. 1927

Vertical Datum (III):

~~Mean sea level except as follows:~~
~~Elevations shown as (25) refer to mean high water~~
~~Elevations shown as (5) refer to sounding datum i.e., mean low water or mean lower low water~~

Below McNary Dam the elevations refer to U.S. Engineers Normal Low Water of 247.7 above M.S.L. For the McNary Dam Reservoir the elevations refer to Normal Pool level of 340 ft. above M.S.L.

Reference Station (III): See reverse side

Lat.: Long.:

Adjusted
Unadjusted

Plane Coordinates (IV): State: Zone:

Y= X=

Roman numerals indicate whether the item is to be entered by (II) Field Party, (III) Photogrammetric Office, or (IV) Washington Office.

When entering names of personnel on this record give the surname and initials, not initials only.

T-10426: G.L.O. No. 2, 1925

Lat.	45° 57' 09.857"	304.3m (1548.2m)
Long.	119° 19' 07.495"	161.4m (1130.8m)

T-10427: RUSH (USE), 1942 (WASH)

Lat.	45° 57' 41.988"	1296.4m (556.1m)
Long.	119° 12' 47.050"	1013.1m (278.9m)

T-10428: SPUK (USE), 1942 (WASH)

Lat.	45° 57' 06.514"	201.1m (1651.4m)
Long.	119° 05' 42.838"	922.7m (369.6m)

T-10430: ARENA (USE), 1942 (OREG)

Lat.	45° 53' 21.801"	673.1m (1179.4m)
Long.	119° 20' 57.030"	1229.6m (64.1m)

T-10431: CINCO (USE), 1942 (OREG)

Lat.	45° 55' 41.458"	1280.0m (572.5m)
Long.	119° 14' 35.568"	766.3m (526.4m)

T-10432: RIM (USE), 1942 (OREG)

Lat.	45° 55' 15.792"	456.7m (1395.8m)
Long.	119° 06' 20.091"	432.9m (860.0m)

FORM 181a
(4-23-54)

U.S. DEPARTMENT OF COMMERCE
COAST AND GEODETIC SURVEY

DESCRIPTIVE REPORT - DATA RECORD

Areas contoured by various personnel
(Show name within area)
(II) (III)

DESCRIPTIVE REPORT - DATA RECORD

Field Inspection by (II): Leonard F. Van Scoy — Date: Summer 1956

Planetable contouring by (II): — Date:

Completion Surveys by (II): — Date:

Mean High Water Location (III) (State date and method of location): Spot locations at intricate places were made in the field. For the most part the normal pool level of 340 feet above M.S.L. was delineated in the office from photographs taken on 9/26/54 when the pool was at that level.

Projection and Grids ruled by (IV): — Date:

Projection and Grids checked by (IV): — Date:

Control plotted by (III): J. E. Deal & L. L. Graves — Date: Sept. 1956

Control checked by (III): J. E. Deal & L. L. Graves — Date: Sept. 1956

Radial Plot or Stereoscopic Control extension by (III): J. L. Harris & J. E. Deal — Date: Sept. 27, 1956

Stereoscopic Instrument compilation (III):
Planimetry — Date:
Contours — Date:

Manuscript delineated by (III): See reverse side — Date:

Photogrammetric Office Review by (III): J. E. Deal (all sheets) — Date: December 1956

Elevations on Manuscript checked by (II) (III): — Date:

	Compilation	Date	Scribing	Date	Stick-up	Date
T-10426	D.N. Williams	11/2/56	D.N. Williams	11/26/56	C.C. Harris	Dec. 1956
T-10427	J.L. Harris	10/22/56	L.L. Graves	11/14/56	"	" "
T-10428	C.C. Harris	11/8/56	C.C. Harris	11/21/56	"	" "
T-10430	D.N. Williams	10/29/56	D.N. Williams	11/19/56	"	Jan. 1957
T-10431	L.L. Graves	10/30/56	L.L. Graves	11/13/56	"	" "
T-10432	L.L. Graves	10/12/56	L.L. Graves	11/2/56	"	" "

FORM 181c
(4-23-54)

U.S. DEPARTMENT OF COMMERCE
COAST AND GEODETIC SURVEY

DESCRIPTIVE REPORT -5- DATA RECORD

Camera (kind or source) (III): C.& G.S. - 9 lens - focal length 8.25 inches

PHOTOGRAPHS (III)

Number	Date	Time	Scale	Water Level of Pool ~~Stage of Tide~~
46162 thru 46170	9/26/54	13:20	1:15,000	340 ft. above M.S.L.
46173 and 46174	9/26/54	13:25	"	"
46175 thru 46179	9/26/54	13:30	"	"
54381 thru 54392	6/11/56	8:20	"	340.4 ft. above M.S.L.

Tide (III)

Ratio of Ranges	Mean Range	Spring Range

Reference Station: Not applicable
Subordinate Station:
Subordinate Station:

Washington Office Review by (IV): S Steffler — Date: July 1959

Final Drafting by (IV): Portland Photogr. Office — Date: 1957

Drafting verified for reproduction by (IV): S Steffler — Date: July 1959

Proof Edit by (IV): — Date:

Land Area (Sq. Statute Miles) (III): 138
Shoreline (More than 200 meters to opposite shore) (III): 40
Shoreline (Less than 200 meters to opposite shore) (III): 3
Control Leveling - Miles (II):
Number of Triangulation Stations searched for (II): 33 Recovered: 29 Identified: 25
Number of BMs searched for (II): 21 Recovered: 21 Identified: none
Number of Recoverable Photo Stations established (III): 26**
Number of Temporary Photo Hydro Stations established (III): 19*

Remarks:

* These stations have topo. names and are of topo. station accuracy. Forms 524 were not submitted in accordance with letter clarifying instructions. Their names and descriptions are listed under Item 49: Notes to the Hydrographer.

** Two are beyond project limits.

COMM-DC-57842

Summary
to accompany shoreline manuscripts T-10426 thru T-10428
and T-10430 thru T-10432

These six surveys are part of Shoreline Project PH-63 (27020). The project, consisting of eighteen manuscripts, covers that part of the Columbia River and adjoining land area from McNary Dam to Pasco in Washington. It was initiated to support hydrographic surveys for the construction of new nautical charts. Subject surveys represent the southern portion of the project and extend from McNary Dam eastward to Juniper Canyon.

Instructions of March 1956 were sent to the Portland Photogrammetric Office with the responsibility of completion. The field work was completed in summer of 1956, the compilation by graphic methods from nine-lens photography of Sept. 1954 and June 1956 and scribing of final reproduction copy during 1956 and 1957.

Subject areas only other coverage is a now obsolete topographic quadrangle by the U. S. Geological Survey of 1907-08 at the scale of 1:125000.

A cronar film positive at the compilation scale of 1:15,000 and the Descriptive Report will be registered and filed in the Bureau Archives.

July 1959

FIELD INSPECTION REPORT

(1956 Season)

Map Manuscripts T-10425 thru T-10432 and T-11318

Project 27020

2. Areal Field Inspection:

The field inspection of this portion of the project was inspected on the nine-lens photographs furnished by the Coast and Geodetic Survey. While some of the prints lack a desired amount of contrast the photos were considered suitable for mapping purposes. The physical inspection of both photographs and the terrain was conducted from a motor vehicle where roads permitted, and by small boat and foot where vehicular travel was prohibitive.

The area can be considered semi-arid. Near the west limits of the project some of the lands along the river are irrigated, but the major portion of cultivated land is tilled by dry land farming.

The Columbia River flows east-west through this area. Near the town of Umatilla, Oregon, is the McNary dam; this impounds the river to form a reservoir that is referred to as McNary Pool as an official name has not been designated. The area is served by a heavy duty two lane highway (U.S. Highway 395) that runs east-west, paralleling the river along the south shore. Three railroads, the Union Pacific Railroad, The Spokane, Portland and Seattle Railway, and the Northern Pacific Railway, operate through this area on tracks that run along both sides of the Columbia River.

Hat Rock State Park, situated on the south bank of McNary Pool, about nine miles east of Umatilla, Oregon, and Wallula State Park at the mouth of the Walla Walla River are two state parks found in the area.

Tug and barge traffic as well as pleasure craft ply the waters of McNary Pool. Portions of the pool serve as Game Range Areas and Wild Life Management Areas.

McNary Dam maintains the pool at a navigable depth and produces hydro-electric power. It includes a navigation lock, and two fish ladders to permit passage of anadromous fish.

3. Horizontal Control:

Two new supplemental horizontal control stations were established by traingulation methods, stations JINGLE 1956 and PEARSON 1956. Third

order accuracy was obtained. These stations were needed to fulfill photogrammetric requirements.

Horizontal control station STRAUB 1947, a required station for control of compilation, was not identified because it was beyond the limits of adequate photo coverage.

Triangulation station VACA RESET 1950 (USE) was found in the general position as described for station VACA (USE) 1942. Correspondence with the Office of the District Engineer, Corps of Engineers, U. S. Army, Walla Walla, Washington produced a letter, dated 17 August 1956, a copy of which is attached to this report

4. Vertical Control:

Vertical control for use by stereoscopic instruments was not required.

Twenty-one bench marks established by the Coast and Geodetic Survey and the Corps of Engineers were recovered. Five were identified to serve as topographic stations.

5. Contours and Drainage:

Contours not applicable. Drainage was indicated on field photographs. The drainage pattern was generally visible due to the lack of woodland cover. In some canyons the images of the dry intermittent stream beds appear on the photographs.

6. Woodland Cover:

The area is almost devoid of woodland cover. With the exceptions of willow, locust and similar deciduous trees that flourish in clumps along the river and irrigation canals, the rest of the un-cultivated land is generally covered with sage brush and wild grasses that are adapted to the semi-arid terrian.

7. Shoreline and Alongshore Features:

A water surface elevation of 340 feet above mean sea level was established by the U. S. Engineers and is maintained at the face of McNary Dam as the normal pool level. This is the level of the pool that appears on the nine-lens photographs and is the accepted mean high-water line.

The low water line was not verified in the field. Due to the level of McNary pool at the time of field inspection, this feature was flooded. The Project Instructions require this feature to be delineated from Corps of Engineers photographs. Small bodies of water that connect to McNary Pool and whose water survace elevations are controlled by the larger pool

have been termed pools. Other small bodies of water not normally influenced by the large McNary Pool are denoted as ponds.

From Umatilla, Oregon, to the mouth of the Walla Walla River both sides of the Columbia River are lined with precipitous bluffs that appear to be of a basaltic composition. From the river they rise in a stair step fashion. Observed from a distance they give the illusion of giant terraces. At intervals the bluffs are gashed by canyons and dry washes. The tops of the bluffs on both sides of the river give way to high, rolling plateaus that are generally cultivated as dry land grain fields.

There are few piers, wharves or landings along the river. Below McNary Dam and up stream at Port Kelly there are grain elevators and storage tanks with conveyors to load cargo vessels for shipment to other river points.

There are five highway and three railroad bridges, one navigation lock and one power line crossing in the area.. Clearances will be described under Item 12, Other Interior Features.

8. Offshore Features:

Except for a few small islands and rocks the area appears to be relatively free of offshore features.

9. Land Marks and Aids:

Significant land marks for nautical charts will be described on form 567.

A system of lighted fixed aids, floating aids and day beacons have been erected and are being maintained along the Columbia River and McNary Pool. Photo identification was made of the fixed aids to navigation.

10. Boundaries, Monuments and Lines:

Two states, Washington and Oregon, are involved in the areal survey. They share a common east-west boundary that follows along the main channel of the Columbia River then eastward, overland, along or near the 46th Parallel. Along U. S. Highway 395 a white, wooden, state boundary marker was photo-identified to aid in determining the boundary in this area.

Below, are excerpts from a letter from the Oregon State Engineer

"The tentative agreed upon coordinates of the Oregon-Washington boundary in the vicinity of McNary Dam are as follows."

Point Number	North Latitude	West Latitude	Description of Location
175	45° 55' 03.1"	119° 26' 57.35"	
176	45° 55' 18.1"	119° 21' 48.12"	
177	45° 55' 51.37"	119° 19' 52.71"	
178	45° 55' 54.48"	119° 19' 39.28"	a point on the center line of the Umatilla Bridge at the center of north main span of said bridge.
179	45° 55' 59.59"	119° 19' 17.2"	
180	45° 56' 10.26"	119° 17' 47.6"	a point on the axis of Mc Nary Dam at the north face of the south non-over flow section.
181	45° 56' 15.24"	119° 17' 05.76"	
182	45° 56' 24.05"	119°15' 21.40"	
183	45° 55' 58.60"	119° 13' 28.22"	
184	45° 55' 40.97"	119°11' 39.82"	
185	45° 55' 40.26"	119° 10' 05.04"	
186	45° 55' 58.55"	119°07' 30.72"	
187	45° 56' 34.25"	119° 05' 27.12"	
188	45° 57' 31.28"	119° 03' 37.36"	
189	45° 58' 09.33"	119° 01' 33.95"	
190	45° 58' 45.73"	119° 00' 27.12"	
191	46° 00' 01.38"	118° 59' 10.12"	questionable! determine cor. lat. 46 of point set on boundary, then easterly along or near the 46° par. following line mon. in 1864 to center of Snake River.

11. Other Control:

Thirty-one marked, recoverable topographic stations and thirty-eight un-monumented photo-topo stations were established, all stations being along the McNary Pool to furnish control for future use in hydrographic surveys.

The following are the marked, recoverable topographic stations established:

T-10425 - YELL, Walla Walla River Light, MYKE
T-10426 - K 338 (USE), McNary Dam Upper Entrance Light, Mile 89-90 Range Rear Light, Mile 89-90 Range Front Light
T-10427 - None
T-10428 - BABS, Beovert Daybeacon No. 1, Beovert Light, Beovert Daybeacon No. 3, TOP (USE), Juniper Light

T-10429 - CAJON (USE), Bull Run Light
T-10430 - LONE, TRIO, TOPO 41/89.0, PLUG, BETH, SHED, PETE, CLEO
T-10431 - BM C 378 1943, BM E 378 1943, BM P 27 1927, Hat Rock Light
T-10432 - DORA, NORA
T-11318 - None
T-10430, west of - DILL, CLEM

Corps of Engineers stations TOP and CAJON were recovered and identified as topographic stations as no information could be found in the horizontal control data concerning these stations.

The names of the un-monumented photo-topo stations will be listed under Notes to the Hydrographer.

12. Other Interior Features:

Highways and roads were classified on photographs as described under Section 5441, Topographic Manual.

The area along the river from Umatilla eastward to the mouth of the Walla Walla River is generally barren with little alongshore culture or habitation.

Clearances for bridges, power lines and navigation locks are listed below.

Umatilla County Toll Bridge over Columbia River

Vertical Clearance 90 feet with Columbia River datum at 247.7 feet
Horizontal clearance - north span 335 feet
south span 335 feet

B. P. and L. Power line crossing east of Umatilla Bridge

Vertical clearance 78 feet

Umatilla River railroad bridge, fixed span

Vertical clearance 32.5 feet
Horizontal clearance, east shore to center support 126 feet
west shore to center support 46 feet

Umatilla River highway bridge, fixed span

Vertical clearance, center of span 56 feet
Horizontal clearance, east span 40 feet
center span 103 feet
west span 0 feet

Juniper Canyon railroad bridge

Vertical clearance,7 feet
Horizontal clearance, west span 64 feet
center span 77 feet
east span 64 feet

Juniper Canyon highway bridge

Vertical clearance, 2 feet
Horizontal clearance, west span, 64 feet - center span, 77 feet
east span, 64 feet

The clearances at Juniper Canyon were taken when the McNary Pool was normal level.

McNary navigation lock

Vertical clearance, unrestricted
Horizontal clearance, 86 feet
Length, 675 feet

Above figures taken from U. S. Engineers Operational Manual.

McNary Dam double leaf Bascule Bridge

Vertical clearance, open, unrestricted
closed, 15 feet
Horizontal clearance, 86 feet

Mouth of Walla Walla River railroad bridge fixed span

Vertical clearance, 37 feet (12 Dec. 1956, 13:30 hours)
Horizontal clearance, 117 feet

Mouth of Walla Walla River highway bridge fixed span

Vertical clearance, 30 feet (12 Dec. 1956, 13:30 hours)
Horizontal clearance, 112 feet

Mouth of Walla Walla River old highway bridge (Center span has been removed)

Vertical clearance, unimpaired
Horizontal clearance, 122.4 feet (12 Dec. 1956, 13:30 hours)

Approved:

V. Ralph Sobieralski

V. Ralph Sobieralski
LCDR C&G Survey
Officer-in-Charge

Respectfully submitted:

Robert B. Melby

Robert B. Melby
Cartographic Survey Aid
C&GS

PHOTOGRAMMETRIC PLOT REPORT

Radial Plot "A"

Map Manuscripts T-10426 thru T-10432

Project 27020

21. Area Covered:

This radial plot covers the shorelines of the Columbia River in Oregon and Washington to an interior depth of about three miles, from a point two miles downstream from Umatilla, Oregon, to a point about one mile upstream from Juniper, Oregon. It comprises map manuscripts T-10426 thru T-10432.

22. Method:

The control extension was accomplished by the hand templet radial line plot method using acetate templets made from nine-lens photographs taken in 1954 and 1956. Photographs were prepared by the usual methods and master calibration templets No. 43497 and No. 48340 were used respectively for the 1954 and 1956 photography when correcting for transforming errors and paper distortion. Refer to letter, 73-mkl dated 9 August 1956, Subject: "Compilation - Projects 27260, Charleston, S. C. and 27020, Upper Columbia River, Oregon", relative to the use of calibration templet No. 48340 (1955) for 1956 photography.

Seven 2' x 3' sheets of Mylar material, on each of which was ruled a polyconic projection of its area comprising 3 minutes - 45 seconds of latitude and 7 minutes - 30 seconds of longitude at scale 1:15,000, were furnished for work sheets. The Lambert State Grids of Washington and Oregon were also ruled on these sheets. The horizontal control falling on each of the respective manuscripts was plotted and verified. The seven sheets were joined together by matching at the meat line junctions and then fastened with clear cellulose tape. The templets were oriented to the identified control directly on the joined work sheets and fastened with masking tape. After all templets were satisfactorily oriented and fastened the entire radial plot was turned face down and the locations of pass points and principal points were pricked and indicated by circles on the reverse sides of the work sheets using Craftint No. 111 red plastic ink. The plot was then turned face up and the templets were dismantled. The photogrammetric points falling in the margins at the junctions of adjoining sheets were transferred and then the joined work sheets were dismantled.

There were more than an adequate number of identified horizontal control stations available and all were satisfactorily held in this radial plot. The results were excellent and well within the limits of horizontal accuracy requirements.

23. Adequacy of Control:

The identification of horizontal control stations was satisfactory and more than an adequate number were available.

24. Supplemental Data:

There were topographic maps, compiled by the Corps of Engineers, U. S. Army, Walla Walla District, available which covered the area of this radial plot. These were not needed to supplement the identified horizontal control stations, but they were used during the compilation of planimetric details for verification of certain features for which state coordinate positions of the U. S. Engineers were available.

25. Photography:

The photography was adequate. The P.M.A. ratio prints were not needed to supplement the nine-lens photography.

Approved:

V. Ralph Sobieralski

V. Ralph Sobieralski
LCDR C&G Survey
Officer-in-Charge

Respectfully submitted:

J. Edward Deal

J. Edward Deal
Cartographer
C&GS

FORM 164
(4-23-54)

U.S. DEPARTMENT OF COMMERCE COAST AND GEODETIC SURVEY

DESCRIPTIVE REPORT CONTROL RECORD

MAP T-10426 PROJECT NO. 2702 SCALE OF MAP 1:15,000 SCALE FACTOR

STATION	SOURCE OF INFORMATION (INDEX)	DATUM	LATITUDE OR y-COORDINATE / LONGITUDE OR x-COORDINATE	DISTANCE FROM GRID IN FEET. OR PROJECTION LINE IN METERS FORWARD	(BACK)	DATUM CORRECTION	N.A. 1927 - DATUM DISTANCE FROM GRID OR PROJECTION LINE IN METERS FORWARD	(BACK)	FACTOR DISTANCE FROM GRID OR PROJECTION LINE IN METERS FORWARD	(BACK)
EXPANSION (USGS)	G-274	N.A.	45 57 34.319				1059.6	(792.9)		
(WASH), 1916	24	1927	119 19 12.696				273.4	(1018.7)		
G.L.O. No. 2, 1925	G-119	"	45 57 09.857				304.3	(1548.2)		
	48		119 19 07.495				161.4	(1130.8)		
MID (USE)(WASH)	G-5257	"	45 56 46.567				1437.8	(414.7)		
1942	582		119 16 40.660				875.8	(416.6)		
MESA (USE) 1942	G-5257	"	45 56 19.664				607.1	(1245.4)		
(WASH)	578		119 26 02.682				57.8	(1234.7)		

1 FT. = .3048006 METER

COMPUTED BY: J.E.D. DATE 8/14/56 CHECKED BY: J.L.H. DATE 8/20/56

COMM-DC-57843

17.

FORM 164
(4-23-54)

U.S. DEPARTMENT OF COMMERCE
DESCRIPTIVE REPORT

COAST AND GEODETIC SURVEY
NTROL RECORD

MAP T-10427 PROJECT NO. 2702 SCALE OF MAP 1:15,000 SCALE FACTOR

STATION	SOURCE OF INFORMATION (INDEX)	DATUM	LATITUDE OR y-COORDINATE LONGITUDE OR x-COORDINATE	DISTANCE FROM GRID IN FEET, OR PROJECTION LINE IN METERS FORWARD	(BACK)	DATUM CORRECTION	N.A. 1927-DATUM DISTANCE FROM GRID OR PROJECTION LINE IN METERS FORWARD	(BACK)	FACTOR DISTANCE FROM GRID OR PROJECTION LINE IN METERS FORWARD	(BACK)
RUSH (USE) 1942	G-5257	N.A.	45 57 28.398				876.8	(975.7)		
(WASH)	579	1927	119 10 01.244				26.8	(1265.3)		
MOUND (USE) 1942	"	"	45 57 41.988				1296.4	(556.1)		
(WASH)	582		119 12 47.050				1013.1	(278.9)		
FOUR MILE, 1947	Wash.	"	46 00 16.494				509.3	(1343.2)		
(WASH)	1224		119 12 08.564				184.3	(1106.7)		
MOTT (USE) 1942	G-5257	"	45 56 25.405				784.4	(1068.1)		
(WASH)	583		119 08 43.581				938.8	(353.7)		

1 FT. = .3048006 METER

COMPUTED BY: J.E.D. DATE 8/14/56 CHECKED BY: J.L.H. DATE 8/20/56

COMM-DC-57843

16.

FORM 164
(4-23-54)

U.S. DEPARTMENT OF COMMERCE COAST AND GEODETIC SURVEY
DESCRIPTIVE REPORT CONTROL RECORD

MAP T- 10428 PROJECT NO. 2702 SCALE OF MAP 1:15,900 SCALE FACTOR

STATION	SOURCE OF INFORMATION (INDEX)	DATUM	LATITUDE OR y-COORDINATE LONGITUDE OR x-COORDINATE	DISTANCE FROM GRID IN FEET, OR PROJECTION LINE IN METERS FORWARD (BACK)	DATUM CORRECTION	N.A. 1927 - DATUM DISTANCE FROM GRID OR PROJECTION LINE IN METERS FORWARD (BACK)	FACTOR DISTANCE FROM GRID OR PROJECTION LINE IN METERS FORWARD (BACK)
SPUK (USE) 1942	G-5257	N.A.	45 57 06.514			201.1 (1651.4)	
(WASH)	583	1927	119 05 42.838			922.7 (369.6)	
SPAW (USE) 1942	"	"	45 57 50.669			1564.4 (288.1)	
(WASH)			119 04 19.166			412.7 (879.3)	
BLAIR (USE) 1942	"	"	45 59 08.382			258.8 (1593.7)	
(WASH)			119 00 53.874			1159.6 (131.8)	
TUMALUM (USE)	"	"	45 57 06.337			195.7 (1656.8)	
1942 (WASH)	580		119 02 57.113			1230.1 (62.2)	
BRIDGE (USE) 1942	"	"	45 57 01.838			56.8 (1795.7)	
(OREG)	584		119 03 31.780			684.5 (607.8)	

1 FT. = .3048006 METER

COMPUTED BY: J.E.D. DATE 8/15/56 CHECKED BY: J.L.H. DATE 8/20/56

COMM-DC-57843

17.

FORM 164
(4-23-54)

U.S. DEPARTMENT OF COMMERCE COAST AND GEODETIC SURVEY

DESCRIPTIVE REPORT CONTROL RECORD

MAP T-10429 PROJECT NO. 2702 SCALE OF MAP 1:15,000 SCALE FACTOR

STATION	SOURCE OF INFORMATION (INDEX)	DATUM	LATITUDE OR y-COORDINATE LONGITUDE OR x-COORDINATE	DISTANCE FROM GRID IN FEET, OR PROJECTION LINE IN METERS FORWARD	(BACK)	DATUM CORRECTION	N.A. 1927-DATUM DISTANCE FROM GRID OR PROJECTION LINE IN METERS FORWARD	(BACK)	FACTOR DISTANCE FROM GRID OR PROJECTION LINE IN METERS FORWARD	(BACK)
PEARSON, 1956	Field	N.A.	45 58 10.652				328.9	(1523.6)		
	Comp.	1927	118 58 01.109				23.9	(1267.9)		
WALL (USE) 1942	G-5257	"	45 58 31.838				983.0	(869.5)		
(OREG)	583		118 59 50.785				1093.3	(198.4)		
JUNIPER (USGS)	"	"	45 59 23.120				713.8	(1138.7)		
1942 (OREG)	580		118 56 12.385				266.6	(1024.8)		

1 FT. = .3048006 METER

COMPUTED BY: J.E.D. DATE 8/15/56 CHECKED BY: J.L.H. DATE 8/21/56

COMM-DC-57843

13.

FORM 164
(4-23-54)

U.S. DEPARTMENT OF COMMERCE COAST AND GEODETIC SURVEY
DESCRIPTIVE REPORT CONTROL RECORD

MAP T-10430 PROJECT NO. 2702 SCALE OF MAP 1:15,000 SCALE FACTOR None

STATION	SOURCE OF INFORMATION (INDEX)	DATUM	LATITUDE OR y-COORDINATE LONGITUDE OR x-COORDINATE	DISTANCE FROM GRID IN FEET. OR PROJECTION LINE IN METERS FORWARD (BACK)	DATUM CORRECTION	N.A. 1927 - DATUM DISTANCE FROM GRID OR PROJECTION LINE IN METERS FORWARD (BACK)	FACTOR DISTANCE FROM GRID OR PROJECTION LINE IN METERS FORWARD (BACK)
COOLIDGE (USE)	G-5257	N.A.	45 55 10.056			310.5 (1542.0)	
1942 (WASH)	579	1927	119 27 31.299			674.5 (618.5)	
HAWK (USE) 1942	"	"	45 53 29.467			909.8 (942.7)	
(OREG)	578		119 24 46.303			998.3 (295.3)	
B.M. "B-378"	Wash	"	45 55 52.785			1629.7 (222.8)	
1947 (OREG)	1224		119 16 08.597			185.2 (1107.5)	
VACA (USE) 1942	G-5257	"	45 55 24.260	Note: See letter note		749.0 (1103.5)	
(OREG)	582		119 17 21.277	VACA RESET, 1950		458.4 (834.4)	
ARENA (USE) 1942	"	"	45 53 21.801			673.1 (1179.4)	
(OREG)	578		119 20 57.030			1229.6 (64.1)	
Center Con. Foundation of former Water	Wash.	"	45 55 14.536			448.8 (1403.7)	
Tank, 1956 (Topo)	1246		119 19 37.816			814.9 (478.0)	
UMATILLA (USE)	G-5257	"	45 54 27.715			855.7 (996.8)	
1942 (OREG)	583		119 20 55.022			1185.9 (107.3)	
WHITEY (USE) 1942	"	"	45 55 50.706			1565.5 (287.0)	
(OREG)	582		119 15 52.390			1128.7 (164.0)	
TRANS (USE) 1942	"	"	45 56 07.536			232.7 (1619.8)	
(WASH)	583		119 19 28.030			603.9 (688.7)	

1 FT. = .3048006 METER

COMPUTED BY: J.E.D. DATE 8/15/56 CHECKED BY: J.L.H. DATE 8/20/56

COMM-DC-57843

FORM 164
(4-23-54)

U.S. DEPARTMENT OF COMMERCE COAST AND GEODETIC SURVEY

DESCRIPTIVE REPORT CONTROL RECORD

MAP T-10431 PROJECT NO. 2702 SCALE OF MAP 1:15,000 SCALE FACTOR None

STATION	SOURCE OF INFORMATION (INDEX)	DATUM	LATITUDE OR y-COORDINATE LONGITUDE OR x-COORDINATE	DISTANCE FROM GRID IN FEET. OR PROJECTION LINE IN METERS FORWARD	(BACK)	DATUM CORRECTION	N.A. 1927-DATUM DISTANCE FROM GRID OR PROJECTION LINE IN METERS FORWARD	(BACK)	FACTOR DISTANCE FROM GRID OR PROJECTION LINE IN METERS FORWARD	(BACK)
CINCO (USE) 1942	G-5257	N.A.	45 55 41.458				1280.0	(572.5)		
(OREG)	578	1927	119 14 35.568				766.3	(526.4)		
GRAF (USE) 1942	"	"	45 55 12.496				385.8	(1466.7)		
(OREG)	579		119 10 39.504				851.3	(441.6)		

1 FT. = .3048006 METER

COMPUTED BY J.E.D. DATE 8/15/56 CHECKED BY J.L.H. DATE 8/20/56

COMM-DC-57843

20

FORM 164
(4-23-54)

U.S. DEPARTMENT OF COMMERCE COAST AND GEODETIC SURVEY

DESCRIPTIVE REPORT [redacted]NTROL RECORD

MAP T-10432 PROJECT NO. 2702 SCALE OF MAP 1:15,000 SCALE FACTOR None

STATION	SOURCE OF INFORMATION (INDEX)	DATUM	LATITUDE OR y-COORDINATE LONGITUDE OR x-COORDINATE	DISTANCE FROM GRID IN FEET, OR PROJECTION LINE IN METERS FORWARD	(BACK)	DATUM CORRECTION	N.A. 1927-DATUM DISTANCE FROM GRID OR PROJECTION LINE IN METERS FORWARD	(BACK)	FACTOR DISTANCE FROM GRID OR PROJECTION LINE IN METERS FORWARD	(BACK)
RIM (USE) 1942	G-5257	N.A.	45 55 14.792				456.7	(1395.8)		
(OREG)	580	1927	119 06 20.091				432.9	(860.0		
JINGLE, 1956	Field	"	45 54 52.410				1618.2	(234.3)		
	Comp.		118 58 24.843				535.4	(757.7)		

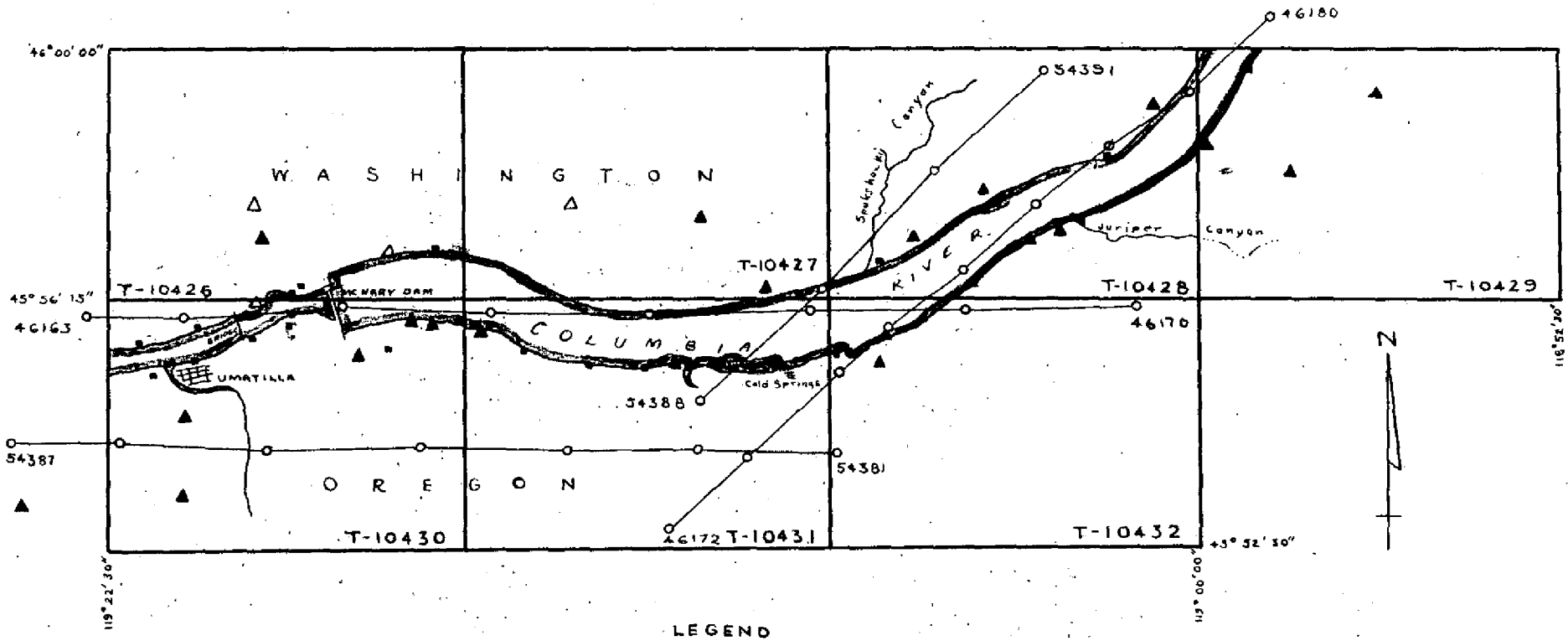
1 FT. = .3048006 METER

COMPUTED BY: J.E.D. DATE 8/15/56 CHECKED BY: J.L.H. DATE 8/20/56

COMM-DC-57843

2.

SKETCH SHOWING AREA OF PHOTOGRAMMETRIC PLOT
MCNARY DAM POOL - PROJECT 27020
RADIAL PLOT "A"
SCALE 1:163,000 (Approx.)



LEGEND

- ▲ IDENTIFIED HORIZONTAL CONTROL STATION
- △ HORIZONTAL CONTROL STATION (NOT IDENTIFIED)
- ■ RECOVERABLE TOPOGRAPHIC STA. (LOCATED GRAPHICALLY)
- O NINE-LENS PHOTOGRAPH CENTERS

COMPILATION REPORT

Map Manuscripts T-10426 thru T-10428

and T-10430 thru T-10432

Project 27020

31. Delineation:

The compilation and drafting were accomplished as follows:

(a) Graphic compilation in both pencil and ink on work sheets having projections ruled in Washington.

(b) Office review.

(c) Transfer of compiled details and projections to yellow coated scribe sheet by blue "WATERCOTE" method.

(d) Scribing compiled details and projections.

(e) Reproduction of scribed features on Van Dyke grained positive.

(f) Stick-up of symbols and type.

(g) Final office review and inspection by Officer-in-Charge.

32. Control:

Refer to Items 22 and 23 of the Photogrammetric Plot Report which is included in the Descriptive Report.

33. Supplemental Data:

For the interpretation of power lines in the vicinity of McNary Dam the photographs were supplemented by data taken from prints of the following drawings, which are submitted with the manuscripts.

Bonneville Power Administration

McNary Switchyard North Corridor
McNary Switchyard South Corridor
McNary Switchyard and Power House.

This office was furnished by the Corps of Engineers, U. S. Army, Walla Walla District, a set of prints of a survey they made of the area behind the McNary Dam previous to flooding. During this survey they

located by triangulation ties many points of planimetry that appear on these six manuscripts. Coordinates on Lambert State Grids were also furnished for these points and they were plotted on the manuscripts for verification purposes. In all instances they were in excellent agreement with the graphically compiled planimetry of the manuscripts. Submitted are the prints of this survey covering the area of the six manuscripts. They are:

Corps of Engineers, U. S. Army
McNary Lock and Dam
Relocations and Section Corner Ties
Drawings MDR-1-12/1 thru MDR-1-12/12

Also submitted is a print furnished by the Oregon State Highway Commission of details inside "Hat Rock State Park". By use of the vertical projector the details shown on the print were transferred to the manuscript.

34. Contours and Drainage:

Contours are not applicable. Drainage was delineated by field inspection and refined by office examination of the photographs and by reference to the U. S. Geological Survey quadrangles of the area.

35. Shoreline and Alongshore Details:

The shoreline of the nine-lens photographs taken on 9/26/54 when the pool level was 340.0 feet above mean sea level has been shown. Except in a few places where clarification was needed no field inspection was made of the shoreline. Downstream from the dam the shoreline shown is at the U. S. Engineers normal low-water datum of 247.7 feet above mean sea level.

All alongshore features and the intricate details of the McNary Dam have been shown.

The approximate low-water line shown was compiled from Corps of Engineers, U. S. Army, photographs taken on 13 October 1953 when the water level of the pool was about 324 feet above mean sea level.

36. Offshore Details:

A few rock islands which are clearly visible on the photographs have been compiled.

37. Landmarks and Aids:

Forms 567 for each of the six map manuscripts are submitted.

x

38. Control for Future Surveys:

Twenty-four forms 524 for recoverable topographic stations located by photogrammetric methods are submitted with this descriptive report. Two others submitted lie west of the west limits of the project and a radial plot location was not determined.

Twenty-one photo-hydro stations of recoverable topographic station accuracy and marked by winged drill holes, chiseled crosses, etc., were located.

All control for future surveys falling within these six map manuscripts is listed under Item 49, "Notes to the Hydrographer".

39. Junctions:

Satisfactory junctions have been made between these six manuscripts and with adjoining manuscripts T-10429 and T-11318.

40. Horizontal and Vertical Accuracy:

Vertical accuracy is not applicable. There are no areas believed to be of sub-normal horizontal accuracy.

46. Comparison with Existing Maps:

The U. S. Geological Survey quadrangle maps of the area are obsolete for comparison with these shoreline manuscripts becuase they were made previous to the flooding of the McNary pool.

47. Comparison with Nautical Charts:

There are no nautical charts of the area. Recent hydrographic surveys by the Corps of Engineers were not available for comparison purposes.

Approved:
V. Ralph Sobieralski
V. Ralph Sobieralski
LCDR C&G Survey
Officer-in-Charge

Respectfully submitted
J. Edward Deal
J. Edward Deal
Cartographer
C&GS

48. Geographic Names:

The geographic names on this map manuscript are not final. They were obtained from the geographic name inspection made by the field unit and shown on a copy of the U. S. G. S. Umatilla quadrangle. They are as follows:

T-10426

Benton County

Columbia River

Lake Wallula (Decision of 1958)

McNary Dam

North McNary

Silusi Butte

Spokane, Portland
and Seattle

16 July 1959
Geographic Names Section
George M. Bare

48. Geographic Names:

The geographic names on this map manuscript are not final. They were obtained from the geographic name inspection made by the field unit and shown on a copy of the U. S. G. S. Umatilla quadrangle. They are as follows:

T-10427

Benton County

Columbia River

Lake Wallula (Decision of 1958)

Rush Canyon

Spokane, Portland
and Seattle

16 July 1959
Geographic Names Section
George M. Ball

48. Geographic Names:

The geographic names on this map manuscript are not final. They were obtained from the geographic name inspection made by the field unit and shown on a copy of the U. S. G. S. Umatilla quadrangle. They are as follows:

T-10428

Benton County

Columbia River

Juniper

Juniper Canyon

Lake Wallula (Decision of 1958)

Spaw Canyon

Spokane, Portland and Seattle

Spukshowski Canyon

Umatilla County

Union Pacific

16 July 1959
Geographic Names Section
George M Bace

48. Geographic Names:

The geographic names on this map manuscript are not final. They were obtained from the geographic name inspection made by the field unit and shown on a copy of the U. S. G. S. Umatilla Quadrangle. They are as follows:

T-10430

Assembly of God

Benton County

Clara Brownell School

Columbia River

Community Presbyterian Church

Lake Wallula (Decision of 1958)

McNary

McNary Dam

Plymouth

Power City

St. Patricks Catholic Church

Umatilla

Umatilla County Toll Bridge

Umatilla County

Umatilla River

Union Pacific

16 July 1959
Geographic Name Section
George W. Bale

48. Geographic Names:

The geographic names on this map manuscript are not final. They were obtained from the geographic name inspection made by the field unit and shown on a copy of the U. S. G. S. Umatilla quadrangle. They are as follows:

T-10431

Benton County

Berrian

Boat Rock

Cold Springs

Cold Springs Wash

Columbia River

Hat Rock

Hat Rock (Village)

Hat Rock State Park

Lake Wallula (Decision of 1958)

Spokane, Portland and Seattle

Umatilla County

Union Pacific

16 July 1959
Geographic Names Section
George M. Bace

48. Geographic Names:

The geographic names on this manuscript are not final. They were obtained from the geographic name inspection made by the field unit and shown on a copy of the U. S. G. S. Umatilla quadrangle. They are as follows:

T-10432

Columbia River

Lake Wallula (Decision of 1958)

Umatilla County

Union Pacific

16 July 1957
Geographic Names Section
George M. Bell

49. Notes to the Hydrographer:

The shoreline on this map manuscript shown with a full line is at a water level of 340 feet above M.S.L. or normal pool level. Downstream from the dam the shoreline is at a water level of 247.7 feet above M.S.L.

The approximate low-water pool level at 325 feet above M.S.L. is shown with a dotted line and was compiled from single lens photographs taken in 1953 by Corps of Engineers when the pool level was 324 feet.

Marked or natural object recoverable topographic stations located by photogrammetric methods and for which Forms 524 were submitted are: K 338 (USE) 1956, McNary Dam Upper Entrance Light 1956, Mile 89-90 Range Rear Light 1956, Mile 89-90 Range Front Light 1956.

Photo-hydro stations located with recoverable topographic station accuracy and for which Forms 524 were not required are:

Name	Photo No.	Description
Topo. 101	46165	Easterly end concrete fender in pool at McNary Dam

49. Notes to the Hydrographer:

The shoreline shown on this map manuscript with a full line is at a water level of 340 feet above M.S.L. or normal pool level.

The approximate low-water pool level at 325 feet above M.S.L. is shown with a dotted line and was compiled from single lens photographs taken in 1953 by Corps of Engineers when the pool level was 324± feet.

There are no marked or natural object recoverable topographic stations within the limits of this manuscript.

Photo-hydro stations located with recoverable topographic station accuracy and for which Forms 524 were not required are:

Name	Photo No.	Description
Topo 102	46166	Westerly 4x4 wood post at gateway through railroad right-of-way
Topo 103	46166	Center of 2 foot rock cairn on highest part of rock out cropping
Topo 108	46169	West end of south headwall of R.R. Culvert No. 203.93

49. Notes to the Hydrographer:

The shoreline shown on this map manuscript with a full line is at a water level of 340 feet above M.S.L. or normal pool level.

The approximate low-water pool level at 325 feet above M.S.L. is shown with a dotted line and was compiled from single lens photographs taken in 1953 by Corps of Engineers when the pool level was 324± feet.

Marked or natural object recoverable topographic stations located by photogrammetric method and for which Forms 524 were submitted are:

BABS,1956, BEOVERT DAYBEACON No. 1, 1956, BEOVERT LIGHT 1956, BEOVERT DAYBEACON No. 3, 1956, TOP (USE) 1956, JUNIPER LIGHT 1956.

Photo-hydro stations located with recoverable topographic station accuracy and for which Forms 524 were not required are:

Name	Photo No.	Description
Topo No. 4	46178	Winged drill hole in northwest end of easterly concrete headwall of R.R. Bridge No. 202.17 at Juniper Canyon
Topo No. 5	46178	Center of a small hexagonal R.R. signal control building 10 ft. high
Topo No. 6	46178	Winged drill hole in northeast end of 4x8 ft. boulder 2 ft. offshore and opposite most easterly of 3 buildings in Juniper, Oregon
Topo No. 109	46176	Center of a 15 ft. R.R. Semaphore Signal No. 2055 painted silver
Topo No. 110	46177	West end of south concrete headwall of R.R. Culvert No. 206.48
Topo No. 111	46177	West end of the south concrete headwall of R.R. Culvert No. 208.18
Topo No. 112	46178	Southwesterly corner of a 5'x 7' shack, 8 ft. high and painted pink
Topo No. 113	46179	1" drill hole in a rock outcrop on the highest part of a large rock outcropping. 20 ft. south of R.R. and 517 ft. east of R.R. Semaphore Signal No. 2106

49. Notes to the Hydrographer:

The shoreline on this map manuscript shown with a full line is at a water level of 340 feet above M.S.L. or normal pool level. Downstream from the dam the shoreline is at a water level of 247.7 ft. above M.S.L.

The approximate low-water pool level at 325 ft. above M.S.L. is shown with a dotted line and was compiled from single lens photographs taken in 1953 by Corps of Engineers when the pool level was 324± ft.

Marked or natural object recoverable topographic stations located by photogrammetric methods and for which Forms 524 were wubmitted are:

TRIO 1956, TOPO 41/89.0, 1956, PLUG 1956, LONE 1956, BETH 1956, SHED 1956, PETE, 1956, CLEO 1956. DILL and CLEM are west of the west limits of the project and their location was not determined.

There were no photo-hydro stations located for the area of this manuscript.

49. Notes to the Hydrographer:

The shoreline shown on this map manuscript with a full line is at a water level of 340 ft. above M.S.L. or normal pool level.

The approximate low-water pool level at 325 ft. above M.S.L. is shown with a dotted line and was compiled from single lens photographs taken in 1953 by Corps of Engineers when the pool level was 324± feet.

Marked or natural object recoverable topographic stations located by photogrammetric methods and for which Forms 524 were submitted are:

BM-C 378 (1943) 1956, BM-E 378 (1943) 1956, BM-P 27 (1921) 1956, HAT ROCK LIGHT 1956

Photo-hydro stations located with recoverable topographic station accuracy and for which Forms 524 were not required are:

Name	Photo No.	Description
Topo No. 1	46167	A winged drill hole in rock outcrop 72 ft. west of a wire fence, 69 ft. north of a turn-around in a track road, 25 ft. south of the north edge of bluff and 2 ft. north of a small pile of rocks
Topo No. 2	46175	A winged drill hole in an irregular shaped boulder projecting 4 ft., about 110 ft. east of west end of rock bluff on an island, 43 ft. southeast of highest point, about 20 ft. south of river
Topo No. 104	46167	Winged drill hole in southerly face of 2'x 2' boulder projecting 2 ft., 139 ft. southeast of Milepost 200 and 98.8 ft. south of south rail at edge of a rock filled area.
Topo No. 105	46167	Winged drill hole in a 6'x 8' boulder projecting 3 ft., 0.2 mile east of R.R. Culvert No. 201.03, 24.3 ft. south of south track, 7 ft. north of the river at a small point of land projecting into the river.
Topo No. 106	46167	Winged drill hole in a flat rock flush with ground, 397 ft. east of a R.R. sign "1 mile S", about 186

49. Notes to the Hydrographer:

Name	Photo No.	Description
		ft. south of south track on a small point projecting into river
Topo No. 107	46168	South gable of a pink house, red roof at Berrian R.R. siding

49. Notes to the Hydrographer:

The shoreline shown on this map manuscript with a full line is at a water level of 340 ft. above M.S.L. or normal pool level.

The approximate low-water pool level at 325 ft. above M.S.L. is shown with a dotted line and was compiled from single lens photographs taken in 1953 by Corps of Engineers when the pool level was 324± ft.

Marked recoverably topographic station, located by photogrammetric methods and for which Forms 524 were submitted are:

DORA 1956 and NORA 1956

Photo-hydro stations located with recoverable topographic station accuracy and for which Forms 524 were not required are:

Name	Photo No.	Description
Topo No. 3	46174	Winged drill hole in top of a 3'x 3' boulder projecting 3 ft., 58 ft. north of C/L of highway, 57 ft. northwest of end post of highway guard railing, 20 ft. south of river, 14 ft. south of east end of rock breakwater.

Review Report of
Shoreline Manuscripts T-10426 thru T-10428 and T-10430
thru T-10432
July 1959

62. COMPARISON WITH REGISTERED TOPOGRAPHIC SURVEYS:

There are no registered topographic surveys of this area.

63. COMPARISON WITH MAPS OF OTHER AGENCIES:

UMATILLA, OREG.-WASH., 1:125000, Edition of 1908, U. S. Geological Survey

Date and scale of this topographic quadrangle are inadequate for a detailed comparison.

64. COMPARISON WITH CONTEMPORARY HYDROGRAPHIC SURVEYS:

None!

65. COMPARISON WITH NAUTICAL CHARTS:

None!

66. ADEQUACY OF RESULTS AND FUTURE SURVEYS:

Subject manuscripts meet the requirements for adequacy and accuracy for this type of survey.

Reviewed by:

Josef J. Streifler

Josef J. Streifler

L C Lande
Chief, Review & Drafting Section
Photogrammetry Division

Max G Ricketts
Chief, Nautical Chart Branch
Charts Division

L W Swansen
Chief, Photogrammetry Division
24 May 60

J. Bowie
Chief, Coastal Surveys Division

~~83~~
~~75~~ c.T.
76

PORTLAND PHOTOGRAMMETRIC OFFICE
405 Custom House
Portland 9, Oregon

AIR MAIL

24 July 1958

To: The Chief, Photogrammetry Division
Coast and Geodetic Survey
Department of Commerce
Washington 25, D. C.

Subject: Location of floating aids to navigation - Ph-63, McNary Pool, Oregon and Washington

The field unit furnished sextant angle locations for all buoys in the McNary pool. We have plotted these on the manuscripts on hand in Portland. They will be shown on the finished manuscripts by stick-up buoy symbols with name, color and number. Type for the names of all buoys is included on the type order for T-10420, dated 22 July 1958.

Two of the buoys are north of the project limits and will not appear on any manuscript. Their names and scaled positions are:

Richland Buoy 1 (Black band on white oil drum)

Lat. 46° 15' 766.6m (1086.0m)
Long. 119° 14' 4.6m (1280.5m)

Richland Buoy 2 (Red band on white oil drum)

Lat. 46° 16' 768.7m (1083.9m)
Long. 119° 15' 929.9m (354.8m)

One buoy was located by a closed sextant angle triangle. It falls on map T-10431 which is in the Washington Office. The name and computed position is:

Mottinger Buoy 1 (Black band on white oil drum; white reflector)

Lat. 45° 56' 00.155" 4.9m (1847.7m)
Long. 119° 09' 29.145" 627.9m (664.7m)

There are four other buoys located in the vicinity of McNary Dam which could not be plotted by this office because the manuscripts are in Washington. Their names and a copy of the sextant angles submitted by the field unit are listed on a separate sheet which is enclosed.

Original sent to 83 for record of these 2 which will not appear on any manuscript. MJG

added during Review JB.

It is suggested that the stick-up type for buoys on the manuscripts in the Washington Office be retained from the type order for T-10420.

V. Ralph Sobieralski
LCDR, C&GS
Officer-in-Charge

Encls.
JSD/bpo

Sextant Angles to Locate Buoys in Vicinity

of McNary Dam, Oregon and Washington

McNary Dam Lighted Buoy 2A (red lighted buoy)

McNary Dam Upper Entrance Light - WHITEY(USE)1942	75° 43'
WHITEY(USE)1942 - LONE 1956	37° 12'
WHITEY(USE)1942 - TRIO 1956	62° 27'

McNary Dam Buoy C (orange and white horizontal banded nun)

McNary Dam Upper Entrance Light 1956 - WHITEY(USE)1942	75° 58'
WHITEY(USE)1942 - LONE 1956	57° 16'
WHITEY(USE)1942 - TRIO 1956	112° 48'

McNary Dam Buoy D (orange and white horizontal banded nun)

McNary Dam Upper Entrance Light 1956 - WHITEY(USE)1942	64° 10'
WHITEY(USE)1942 - LONE 1956	41° 58'
WHITEY(USE)1942 - TRIO 1956	101° 44'

McNary Dam Buoy "E" (orange and white horizontal banded nun)

McNary Dam Upper Entrance Light 1956 - WHITEY(USE)1942	56° 34'
WHITEY(USE)1942 - LONE 1956	31° 50'
WHITEY(USE)1942 - TRIO 1956	87° 37'

Copied from field records: J. E. Deal

Verified from field records: J. L. Harris

Added during Review JB

Form 526
(11-8-55)

U.S. DEPARTMENT OF COMMERCE - COAST AND GEODETIC SURVEY

T-10430

RECOVERY NOTE, TRIANGULATION STATION

R

NAME OF STATION: VACA RESET
ESTABLISHED BY: Corps of Engineers YEAR: 1950 STATE: Oregon
RECOVERED BY:* F.N. YEAR: 1956 COUNTY: Umatilla

Detailed statement as to the fitness of the original description; including marks found, stampings, changes made, and other pertinent facts:

Station recovered in good condition. A new description follows:

Located about 3 miles east of Umatilla on top of a low ridge about 100 feet northeast of 3 large elevated water tanks, 93 feet northeast of northeast corner of fence around tanks, 65.5 feet north of a power line pole and 13 feet west of the face of the curb along Willamette Avenue.

Station mark is a Corps of Engineers disk stamped VACA RESET 1950 in top of a 6-inch concrete post projecting 6 inches.

There are no reference marks.

To reach from the intersection of U.S. Highway 730 and Willamette Avenue at McNary, to north on Willamette Avenue 0.55 mile to the 3 large tanks and the station on the left. Willamette Avenue is a divided street and the station is west of the southbound traffic lane.

Described by W.M.R.

*Name of chief of party should be inserted here. The officer who actually visited the station should sign his name at the end of the recovery note.

NOTE.—One of these forms must be used for every station recovered.

Comm-DC 34314

original to Geodesy
#, 6/7/57

COPY COPY

CORPS OF ENGINEERS, U.S. ARMY
OFFICE OF THE DISTRICT ENGINEER
WALLA WALLA DISTRICT
BLDG. 602, CITY-COUNTY AIRPORT
WALLA WALLA, WASHINGTON

NPWGA

17 August 1956

Ector B. Latham, Capt., C&GS
Portland District Officer
314 U.S. Court House
Portland 5, Oregon

Gentlemen:

Reference to your letter concerning triangulation Station VACA Reset 1950.

Last February one of our Party's tied a traverse to this station. It was the first time that I was aware that it had been Reset, apparently done by some of our personnel at McNary Dam who did not properly note what was done in the way of resetting, so we occupied Stations TRANS and BLUFFER and got five second triangle closures which gave new Lambert Ore. North Zone co-ordinates of N217,542.29; old N217,542.66; new E2,308,122.52; old E2,308,122.26. Since the change was slight and the method of checking not too accurate we assumed that the station had been reset from the reference marks before they were destroyed; therefore, we used the old co-ordinates for over-tie. However, we planned on doing a better job of checking when time permitted.

Very truly yours,

s/C. W. WAGGONER

C. W. WAGGONER
Chief, Survey & Drafting Branch

Original enclosed copy
to Geodetic
[illegible]

NAUTICAL CHARTS BRANCH

SURVEY NO. T-10426 thru T-10428
T-10430 thru T-10432

Record of Application to Charts

DATE	CHART	CARTOGRAPHER	REMARKS
			Before After Verification and Review
			Before After Verification and Review
			Before After Verification and Review
			Before After Verification and Review
			Before After Verification and Review
			Before After Verification and Review
			Before After Verification and Review
			Before After Verification and Review
			Before After Verification and Review
			Before After Verification and Review

M-2168-1

A basic hydrographic or topographic survey supersedes all information of like nature on the uncorrected chart. Give reasons for deviations, if any, from recommendations made under "Comparison with Charts" in the Review.