



STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY
CENTRAL REGIONAL OFFICE
WATER COMPLIANCE INSPECTION REPORT

substitute for OMB
No. 2040-0057
and EPA form 3560-3
(Rev. 9-94)
(last file update 12-95)

FACILITY NAME: CITY OF KENNEWICK POTW

FACILITY NUMBER: WA0044784

SECTION 1: INSPECTION INFORMATION

START DATE: MAY 28, 2019

PRIMARY INSPECTOR DONNA SMITH

INSPECTION TYPE (CHECK ONE):

- COMPLIANCE INSPECTION W/O SAMPLING ☒
COMPLIANCE INSPECTION W/ SAMPLING ☐
COVERAGE INSPECTION ☐
COMPLIANCE FOLLOW-UP INSPECTION ☐
TECHNICAL ASSISTANCE VIST ☐
OPERATION & MAINTENANCE INSPECTION ☐

PERMIT # WA0044784

COMPLAINT # _____

LAB PROJECT # _____

ENFORCEMENT DOCKET # _____

Y/N:

Scheduled Y

ANNOUNCED Y

PART OF A GROUP _____

REASON FOR INSPECTION
(CHECK ONE)

- ROUTINE ☒
COMPLAINT ☐
DRIVE BY ☐
ENFORCEMENT ☐
QA ☐
BIO-MONITORING ☐
OTHER (SPECIFY) _____

PARTICIPANTS

DEAN BUGHER, KEVIN

WEBB, GEORGE

MESSENTER

DONNA SMITH, ERIK VAN

DOREN, KEVIN DOLAN

AGENCY

KENNEWICK

ECOLOGY

FAC. REP
(Y/N)

Y

N

PHONE #

509-575-2612

SECTION 2: FACILITY INFORMATION

FACILITY: CITY OF KENNEWICK

NAME: _____

ADDRESS: 416 N KINGWOOD, KENNEWICK,
WA

DATE TIME

ENTRY 1 5/28/19 8:30

EXIT 1 5/28/19 11:00

ENTRY 2 _____

EXIT 2 _____

ENTRY 3 _____

EXIT 3 _____

ENTRY TYPE
(CHECK ONE)

- DENY ☐
DELAY ☐
WARRANT ☐

SECTION 3: AREAS EVALUATED DURING INSPECTION

N = NOT EVALUATED, S = SATISFACTORY

M = MARGINAL, U = UNSATISFACTORY

INSPECT BENCH SHEETS S

INSPECT PERMIT S

RECORDS/REPORTS S

FLOW MEASUREMENTS N

LABORATORY S

EFFLUENT/RECEIVING WATER N

PRE-TREATMENT S

COMPLIANCE SCHEDULES S

SELF MONITORING PROGRAM S

OPERATION & MAINTENANCE S

SLUDGE DISPOSAL S

FACILITY SITE REVIEW S

LAB ACCREDITATION S

OTHER (SPECIFY) _____

SECTION 3: SUMMARY OF FINDINGS / COMMENTS (ATTACH ADDITION PAGES IF NEEDED)**Inspection Report**

City of Kennewick POTW

Inspection Date: May 28, 2019

Donna Smith

Participants

Ecology: Erik Van Doren, Kevin Dolan, Donna Smith

City of Kennewick: Dean Bugher, Kevin Webb, George Messenger

Pre inspection meeting

Upcoming Laboratory audit. Ecology's Laboratory Accreditation Program is conducting an audit of the City of Kennewick's laboratory. The City has completed the pre audit questionnaire and the audit is scheduled. Knowing this, we will not spend as much time in the laboratory as we normally would.

Inspection plan: Discussed what we would like to start at the headworks, and follow the process in the order in which things occur. We will also be looking at stormwater, as Kevin Dolan is the Industrial Stormwater General Permit Manager.

Operation and Maintenance: We discussed that we'll be looking at O&M at the plant, including how O&M tasks are identified, work is assigned and activities are tracked. The city has a computerized system for tracking its O&M.

Inspection

Raw influent enters the Influent Screening building. Influent flow is measured using a level transducer prior to passing through the FSM filter screens. An auger system removes the solids from the screens, through a screenings washer/compactor and to the influent waste screenings dumpster. City disposes these solids at the landfill. The building was clean and well maintained.

The Motor Control Center (MCC) Building (#5) contains the variable frequency drives (VFD) for controlling the 4 influent pumps, electrical buckets for the polishing clarifiers' controls, spare parts and the alum dosing system. The alum dosing system was last used in September 2017 according to the dosing log in the building. The building was clean and well organized.

Lagoons: Wastewater is currently being pumped to one of two aeration lagoons. Both are aerated.

Following treatment in the lagoon, the wastewater travels through the HRT splitter box and is sent to intermediate clarifiers 1 & 2.

The clarifiers are equipped with brush systems on the sweep arms to clean algae from the weirs. The operator measured the sludge in clarifier 2 using a sludge judge. Sludge depth measured less than 2 feet.

Supernate from the intermediate clarifiers goes to final polishing clarifiers and from there, the effluent goes through ultraviolet disinfection and is discharged to the Columbia River.

The treatment plant has a new UV system, a Trojan NV 3000 Plus. The city has retained its old system as a back up.

Effluent samples are collected using an ISCO 5800 automated sampler. The sampler was running. The temperature inside the sampler was 2.5 C, and there was a second thermometer to confirm the temperature.



Drywells. According to the city, the drywells on the property drain stormwater into the influent screening building and no stormwater leaves the site. We lifted a manhole cover and observed the interior of the drywell. If the

drywell fills, there is a pipe that drains the stormwater to the influent screening building.

Overall, the treatment plant is well maintained, well operated and required records are in order.

Kennewick POTW Inspection Photographs, May 28, 2019

Photographs taken by Donna L. Smith.

Description provided by Dean Bugher, Lead Operator	Photographs	Image Name
Level transducer for influent flow to FSM Filter Screens	 Ctrl+Click HERE to view full size image	Kennewick POTW
Influent FSM Filter Screens	 Ctrl+Click HERE to view full size image	Kennewick POTW

<p>Auger system inside of screenings hopper</p>	 <p>Ctrl+Click HERE to view full size image</p>	<p>Kennewick POTW</p>	
<p>Influent waste screenings dumpster</p>	 <p>Ctrl+Click HERE to view full size image</p>	<p>Kennewick POTW</p>	

Solids leaving screenings washer compacter through delivery system to waste dumpster.



[Ctrl+Click HERE to view full size image](#)

Kennewick
POTW

Solids from screening washer compacter through delivery system dropping into dumpster.



[Ctrl+Click HERE to view full size image](#)

Kennewick
POTW

Screenings washer compacter



[Ctrl+Click HERE to view full size image](#)

Kennewick
POTW

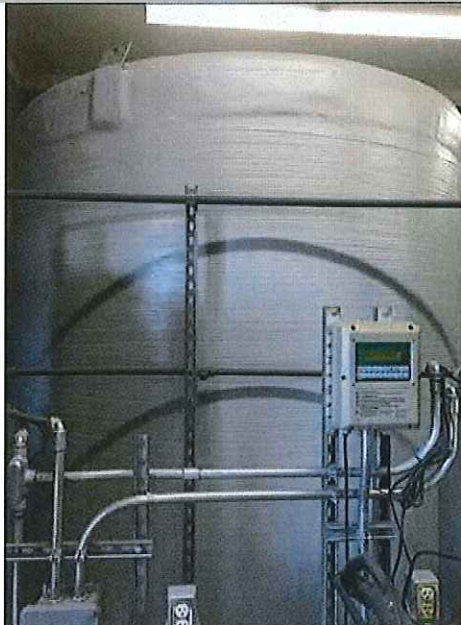
MCC building for Influent pumps and finial polishing clarifiers. Also building stores chemical system for Alum and polymer if needed.



[Ctrl+Click HERE to view full size image](#)

Kennewick
POTW

Alum storage tank, 1 of 2 in
Bld. #5.



[Ctrl+Click HERE to view full size image](#)

Kennewick
POTW

Kennewick
POTW

Time	Time	Distance	Speed	Altitude	Wind	Temp	Humidity	Barometer
5:00	5:00	0.1	2.5	1.5	10.0	79.5	7.1	
5:05	5:05	0.2	2.5	2.0	10.0	79.5	7.1	
5:10	5:10	0.3	2.5	2.5	10.0	79.5	7.1	
5:15	5:15	0.4	2.5	3.0	10.0	79.5	7.1	
5:20	5:20	0.5	2.5	3.5	10.0	79.5	7.1	
5:25	5:25	0.6	2.5	4.0	10.0	79.5	7.1	
5:30	5:30	0.7	2.5	4.5	10.0	79.5	7.1	
5:35	5:35	0.8	2.5	5.0	10.0	79.5	7.1	
5:40	5:40	0.9	2.5	5.5	10.0	79.5	7.1	
5:45	5:45	1.0	2.5	6.0	10.0	79.5	7.1	
5:50	5:50	1.1	2.5	6.5	10.0	79.5	7.1	
5:55	5:55	1.2	2.5	7.0	10.0	79.5	7.1	
6:00	6:00	1.3	2.5	7.5	10.0	79.5	7.1	
6:05	6:05	1.4	2.5	8.0	10.0	79.5	7.1	
6:10	6:10	1.5	2.5	8.5	10.0	79.5	7.1	
6:15	6:15	1.6	2.5	9.0	10.0	79.5	7.1	
6:20	6:20	1.7	2.5	9.5	10.0	79.5	7.1	
6:25	6:25	1.8	2.5	10.0	10.0	79.5	7.1	
6:30	6:30	1.9	2.5	10.5	10.0	79.5	7.1	
6:35	6:35	2.0	2.5	11.0	10.0	79.5	7.1	
6:40	6:40	2.1	2.5	11.5	10.0	79.5	7.1	
6:45	6:45	2.2	2.5	12.0	10.0	79.5	7.1	
6:50	6:50	2.3	2.5	12.5	10.0	79.5	7.1	
6:55	6:55	2.4	2.5	13.0	10.0	79.5	7.1	
7:00	7:00	2.5	2.5	13.5	10.0	79.5	7.1	
7:05	7:05	2.6	2.5	14.0	10.0	79.5	7.1	
7:10	7:10	2.7	2.5	14.5	10.0	79.5	7.1	
7:15	7:15	2.8	2.5	15.0	10.0	79.5	7.1	
7:20	7:20	2.9	2.5	15.5	10.0	79.5	7.1	
7:25	7:25	3.0	2.5	16.0	10.0	79.5	7.1	
7:30	7:30	3.1	2.5	16.5	10.0	79.5	7.1	
7:35	7:35	3.2	2.5	17.0	10.0	79.5	7.1	
7:40	7:40	3.3	2.5	17.5	10.0	79.5	7.1	
7:45	7:45	3.4	2.5	18.0	10.0	79.5	7.1	
7:50	7:50	3.5	2.5	18.5	10.0	79.5	7.1	
7:55	7:55	3.6	2.5	19.0	10.0	79.5	7.1	
8:00	8:00	3.7	2.5	19.5	10.0	79.5	7.1	
8:05	8:05	3.8	2.5	20.0	10.0	79.5	7.1	
8:10	8:10	3.9	2.5	20.5	10.0	79.5	7.1	
8:15	8:15	4.0	2.5	21.0	10.0	79.5	7.1	
8:20	8:20	4.1	2.5	21.5	10.0	79.5	7.1	
8:25	8:25	4.2	2.5	22.0	10.0	79.5	7.1	
8:30	8:30	4.3	2.5	22.5	10.0	79.5	7.1	
8:35	8:35	4.4	2.5	23.0	10.0	79.5	7.1	
8:40	8:40	4.5	2.5	23.5	10.0	79.5	7.1	
8:45	8:45							

Kennewick
POTW

VFD's used for controlling 4
influent pumps in Bld.# 5



[Ctrl+Click HERE to view full size image](#)

Kennewick
POTW

Electrical Buckets used for
polishing clarifiers' controls
located in Bld. #5.



[Ctrl+Click HERE to view full size image](#)

Kennewick
POTW

Spare parts stored in Bld. #5.



Kennewick
POTW

[Ctrl+Click HERE to view full size image](#)

Parking lot drywells.

Note the green pipe for
draining stormwater to
headworks building. DS



Kennewick
POTW

[Ctrl+Click HERE to view full size image](#)

Parking lot dry well with
manhole cover removed.

Influent Screening building in
background. Pipe in picture
above drains to headworks
building. DS



Kennewick
POTW

[Ctrl+Click HERE to view full size image](#)

Picture of influent screening Bld.



Kennewick
POTW

[Ctrl+Click HERE to view full size image](#)

Crane system installed in 2018.
Crane used for lifting influent
pumps out for service.



Kennewick
POTW

[Ctrl+Click HERE to view full size image](#)

Crane system installed in 2018.
Crane used for lifting influent
pumps out for service.



Kennewick
POTW

[Ctrl+Click HERE to view full size image](#)

Picture of influent pump deck covers under crane system.



[Ctrl+Click HERE to view full size image](#)

Kennewick
POTW

Picture of influent pump deck covers under crane system.



[Ctrl+Click HERE to view full size image](#)

Kennewick
POTW

Picture of influent flow to HRT inlet structure. Also ASL influent pipe pumped from lagoons when in use. This is currently off in photo.



[Ctrl+Click HERE to view full size image](#)

Kennewick
POTW

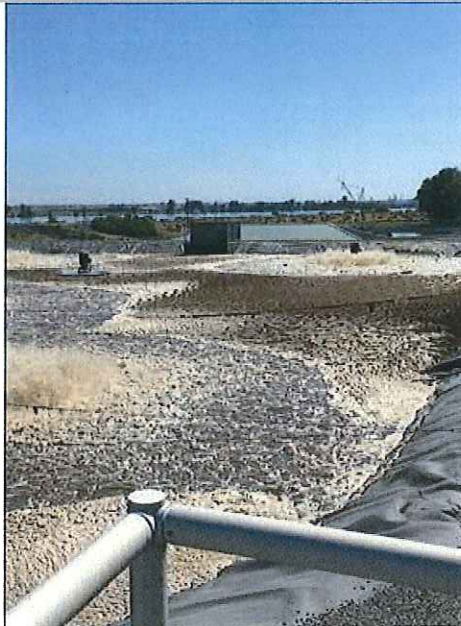
Picture of North HRT (aerated lagoon) influent pipe from inlet structure to basin.



[Ctrl+Click HERE to view full size image](#)

Kennewick
POTW

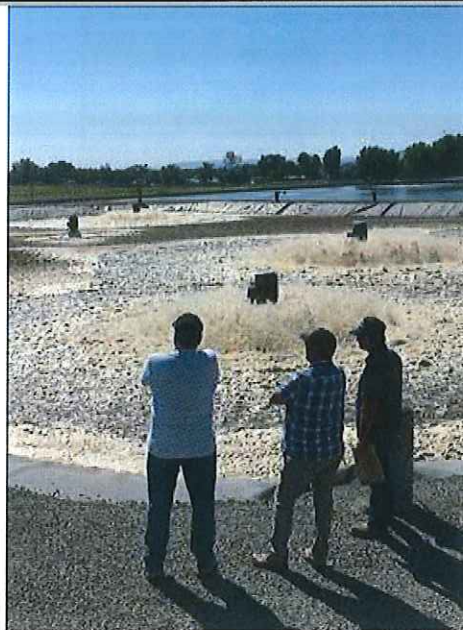
Picture of South HRT (aerated lagoon)



[Ctrl+Click HERE to view full size image](#)

Kennewick
POTW

Picture of South HRT, lagoon #2 is seen in back ground.



[Ctrl+Click HERE to view full size image](#)

Kennewick
POTW

Picture of thin sludge blanket
in old HRT splitter box.



[Ctrl+Click HERE to view full size image](#)

Kennewick
POTW

Picture of old HRT splitter box with spray bar. Note: spray bar currently off.



[Ctrl+Click HERE to view full size image](#)

Kennewick
POTW

Picture of new HRT splitter box, with flow going to intermediate clarifiers 1 and 2.



[Ctrl+Click HERE to view full size image](#)

Kennewick
POTW

Rear photo of new HRT splitter box before overflow to intermediate clarifier #1.



Kennewick
POTW

[Ctrl+Click HERE to view full size image](#)

Picture of old HRT splitter box standing at new HRT splitter box location.



Kennewick
POTW

[Ctrl+Click HERE to view full size image](#)

Picture of DO probe location located in south HRT.



[Ctrl+Click HERE to view full size image](#)

Kennewick
POTW

Picture of Intermediate Clarifier #1.



[Ctrl+Click HERE to view full size image](#)




Kennewick
POTW

Picture of Intermediate Clarifier #2.



[Ctrl+Click HERE to view full size image](#)

Kennewick
POTW

<p>Picture of Lagoon #2, currently in use. Solids storage.</p>	 <p>Ctrl+Click HERE to view full size image</p>	<p>Kennewick POTW</p>	
<p>Picture of Lagoon #2.</p>	 <p>Ctrl+Click HERE to view full size image</p>	<p>Kennewick POTW</p>	
<p>Picture looking through grating of new ASL station.</p>	 <p>Ctrl+Click HERE to view full size image</p>	<p>Kennewick POTW</p>	

Picture of grating removed from new ASL station. The water from lagoon #2 is currently going to Eff. polishing clarifiers.



[Ctrl+Click HERE to view full size image](#)

Kennewick
POTW

Picture of grating removed from new ASL station. The water from lagoon #2 is currently going to Eff. polishing clarifiers. This picture was taken at a different angel.



[Ctrl+Click HERE to view full size image](#)

Kennewick
POTW

Another picture of grating removed at ASL from a different angel.



[Ctrl+Click HERE to view full size image](#)

Kennewick
POTW

Picture of Intermediate clarifier gear drive system with cover removed.



[Ctrl+Click HERE to view full size image](#)

Kennewick
POTW

Picture of south entrance to
New RAS / WAS pump room.



[Ctrl+Click HERE to view full size image](#)

Kennewick
POTW

Picture looking into New RAS
room.



[Ctrl+Click HERE to view full size image](#)

Kennewick
POTW

Sump in New RAS/Was building.



[Ctrl+Click HERE to view full size image](#)

Kennewick
POTW

Picture of activated sludge line coming from clarifiers to RAS / WAS pumps.



[Ctrl+Click HERE to view full size image](#)

Kennewick
POTW

Standing at the north side of new RAS / WAS building looking south at RAS and WAS pumps.



[Ctrl+Click HERE to view full size image](#)

Kennewick
POTW

Flow meter readouts from new Mag meters installed in 2018.



[Ctrl+Click HERE to view full size image](#)

Kennewick
POTW

New RAS and WAS building
MCC.



[Ctrl+Click HERE to view full size image](#)

Kennewick
POTW

New RAS and WAS building
MCC.



[Ctrl+Click HERE to view full size image](#)

Kennewick
POTW

Sample location for getting
RAS sample.



[Ctrl+Click HERE to view full size image](#)

Kennewick
POTW

Hose used to flush RAS sample
to sump.



[Ctrl+Click HERE to view full size image](#)

Kennewick
POTW

Flow indicators coming from Intermediate clarifiers.



[Ctrl+Click HERE to view full size image](#)

Kennewick
POTW

Old RAS sample port. Also label indicating if wasting pump is in manual you must put pump back into auto before leaving.



[Ctrl+Click HERE to view full size image](#)

Kennewick
POTW

#1 Clarifier RAS pump.



Kennewick
POTW

[Ctrl+Click HERE to view full size image](#)

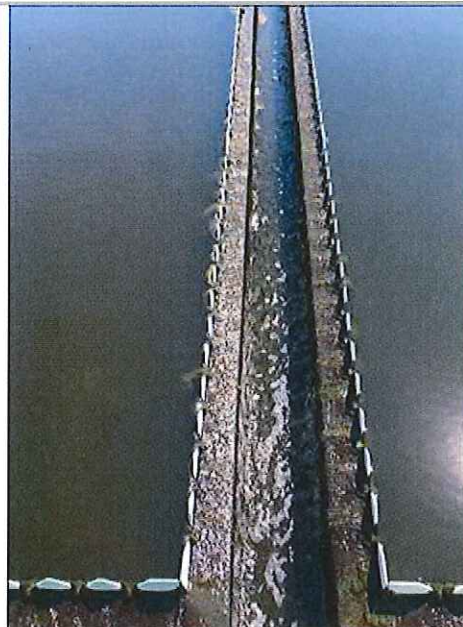
1 of 2 new MAG. meters' installed in 2018 for flow coming from Influent pumps to HRT's.



Kennewick
POTW

[Ctrl+Click HERE to view full size image](#)

Flow from Eff. Polishing clarifiers.



Kennewick
POTW

[Ctrl+Click HERE to view full size image](#)

Eff. flow coming from polishing clarifiers into screening baskets.



[Ctrl+Click HERE to view full size image](#)

Kennewick
POTW

Composite sampler in UV
room.



[Ctrl+Click HERE to view full size image](#)

Kennewick
POTW

Inside of composite sampler currently in use.



[Ctrl+Click HERE to view full size image](#)



Kennewick
POTW

External thermometer used for verification on composite sampler thermometer.



[Ctrl+Click HERE to view full size image](#)

Kennewick
POTW

<p>Temperature probe for external thermometer.</p>	 <p>Ctrl+Click HERE to view full size image</p>	<p>Kennewick POTW</p>	
<p>Picture of New UV system.</p>	 <p>Ctrl+Click HERE to view full size image</p>	<p>Kennewick POTW</p>	

Picture of old back up UV system.



[Ctrl+Click HERE to view full size image](#)

Kennewick
POTW

Picture of New UV system
Power Distribution Center
Bank 2A.



[Ctrl+Click HERE to view full size image](#)

Kennewick
POTW

Picture of HYD. hose's for new UV wiping system.



Kennewick
POTW

[Ctrl+Click HERE to view full size image](#)

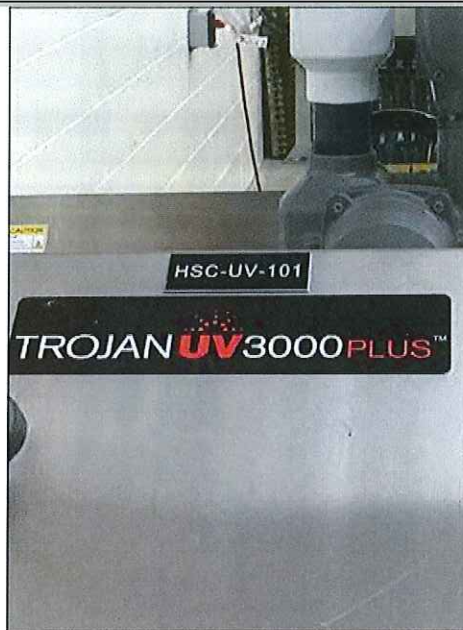
Bank water level control
readout for new UV system.



Kennewick
POTW

[Ctrl+Click HERE to view full size image](#)

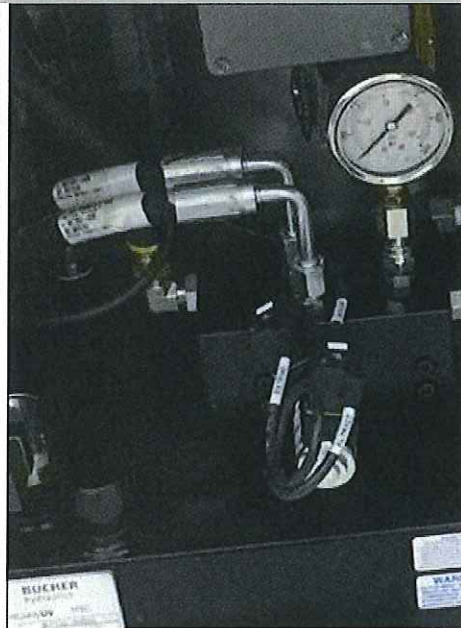
Label indicating new UV model.



[Ctrl+Click HERE to view full size image](#)

Kennewick
POTW

Hyd. Pump and pressure
system for UV wiping system.



[Ctrl+Click HERE to view full size image](#)

Kennewick
POTW

Power Distribution Center for
UV channel 1B.



Kennewick
POTW


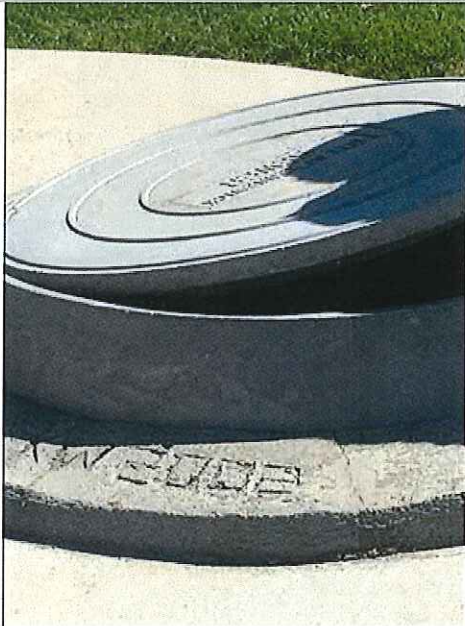
[Ctrl+Click HERE to view full size image](#)

UV Transmittance Monitor
readout.



Kennewick
POTW

[Ctrl+Click HERE to view full size image](#)

Pipe holding UV Transmittance Sensor.		Kennewick POTW
	Ctrl+Click HERE to view full size image	
WWTP Eff. flow meter.		Kennewick POTW
	Ctrl+Click HERE to view full size image	

SECTION 4: FOLLOW-UP (CHECK ALL THAT APPLY)

TYPE	DETAIL	RESP. PERSON	SCHEDULE	DONE
<input type="checkbox"/> CONDUCT CLASS II	_____	_____	_____	_____
<input type="checkbox"/> LAB ACCRED MANUAL	_____	_____	_____	_____
<input type="checkbox"/> RE-INSPECT	_____	_____	_____	_____
<input type="checkbox"/> RE-OPEN PERMIT	_____	_____	_____	_____
<input type="checkbox"/> SEND APPLICATION	_____	_____	_____	_____
<input type="checkbox"/> TECH ASSIST-REGULAR	_____	_____	_____	_____
<input type="checkbox"/> TECH ASSIST-OUTREACH	_____	_____	_____	_____
<input type="checkbox"/> MOD PERMIT AT RENEWAL	_____	_____	_____	_____
<input type="checkbox"/> FACILITY ACTION	_____	_____	_____	_____
<input type="checkbox"/> ENFORCEMENT (WARN LET	_____	_____	_____	_____

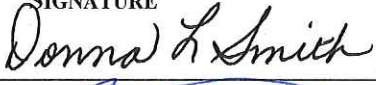

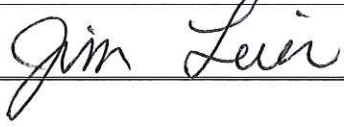
☐ NOV, ORDER, PENALTY)

☐ OTHER (SPECIFY) _____

SECTION 5: ACTIVITIES (CHECK ALL THAT APPLY)

DESCRIPTION	DATE COMPLETED	TRACKING NUMBER
<input type="checkbox"/> DATA RECEIVED FROM LAB		
<input type="checkbox"/> DRAFT INSPECTION REPORT COMPLETED		
<input checked="" type="checkbox"/> FINAL INSPECTION REPORT COMPLETED	6/19/19	
<input type="checkbox"/> FINAL INSPECTION RPT RCD FROM EILS		
<input type="checkbox"/> FORM 3506 SENT TO EPA		
<input type="checkbox"/> INSPECTION REPORT REVIEWED		
<input type="checkbox"/> SAMPLES TO LAB		
<input type="checkbox"/> OTHER		

SECTION 6: SIGNATURES

	NAME (PRINT)	SIGNATURE	DATE	AGENCY/PH#
INSPECTOR 1	DONNA L. SMITH		6/19/19	509-575-2612
INSPECTOR 2	ERIK VAN DOREN		6/19/19	509-457-7119
REVIEWER	JIM LEIER		6-24-19	509-454-4247

