pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Northwest Regional Office
CLEAN WATER PROGRAM

Application Type	**New**	Application No.	**PA0265829**
Facility Type	**Industrial**	APS ID	**1090753**
Major / Minor	**Minor**	Authorization ID	**1489802**

NPDES PERMIT FACT SHEET INDIVIDUAL INDUSTRIAL WASTE (IW) AND IW STORMWATER

Applicant and Facility Information

Applicant Name	**Loves Travel Stops & Country Stores, Inc.**	Facility Name	**Loves Travel Stop Slippery Rock**
Applicant Address	P.O. Box 26210	Facility Address	Interstate 79 & New Castle Road
	Oklahoma City, OK 73126-0210		Slippery Rock, PA 16057
Applicant Contact	Caleb Harrison	Facility Contact	
Applicant Phone	(405) 308-8516	Facility Phone	
Client ID	242623	Site ID	821189
SIC Code	5541	Municipality	Worth Township
SIC Description	Retail Trade - Gasoline Service Stations	County	Butler
Date Application Received	June 24, 2024	EPA Waived?	Yes
Date Application Accepted	June 24, 2024	If No, Reason	

Purpose of Application: New NPDES Permit for a discharge of Industrial Waste, Sewage & Stormwater.

Summary of Review

This application is for a new IW NPDES Permit to replace an existing sewage NPDES Permit. The switch in permit types is due to the permittee requesting to include a new outfall that includes wastewater from floor drains in a maintenance shop, wash water around the diesel pump dispenser area, and stormwater from the facility. The wastewater from the floor drains and the wash water (which go through oil / water separators) is considered industrial wastewater.

The facility is a travel center with truck and auto fueling, truck maintenance, retail store, and food services. The existing outfall receives treated domestic sewage from the facility.

There are currently no open violations listed in EFACTS for this client (4/3/2025).

Sludge use and disposal description and location(s): Hauled offsite to a municipal STP.

Public Participation

DEP will publish notice of the receipt of the NPDES permit application and a tentative decision to issue the individual NPDES permit in the *Pennsylvania Bulletin* in accordance with 25 Pa. Code § 92a.82. Upon publication in the *Pennsylvania Bulletin*, DEP will accept written comments from interested persons for a 30-day period (which may be extended for one additional 15-day period at DEP's discretion), which will be considered in making a final decision on the application. Any person may request or petition for a public hearing with respect to the application. A public hearing may be held if DEP determines that there is significant public interest in holding a hearing. If a hearing is held, notice of the hearing will be published in the *Pennsylvania Bulletin* at least 30 days prior to the hearing and in at least one newspaper of general circulation within the geographical area of the discharge.

Approve	Deny	Signatures	Date
X		Adam J. Pesek Adam J. Pesek, E.I.T. / Project Manager	April 3, 2025
X		Adam Olesnanik Adam Olesnanik, P.E. / Environmental Engineer Manager	April 4, 2025

Discharge, Receiving Waters and Water Supply Information

Outfall No.	001	Design Flow (MGD)	0.009
Latitude	41º 2' 11"	Longitude	-80º 7' 36"
Quad Name	Harlansburg	Quad Code	04033
Wastewater Description:	Sewage Effluent		
Receiving Waters	Slippery Rock Creek	Stream Code	34032
NHD Com ID	126223829	RMI	19
Drainage Area	263.5	Yield (cfs/mi^2)	0.131
Q_{7-10} Flow (cfs)	34.5	Q_{7-10} Basis	Slippery Rock Ck @ Wurtemburg
Elevation (ft)	1124	Slope (ft/ft)	0.0015
Watershed No.	20-C	Chapter 93 Class.	CWF
Existing Use		Existing Use Qualifier	
Exceptions to Use		Exceptions to Criteria	
Assessment Status	Attaining Use(s)		
Cause(s) of Impairment			
Source(s) of Impairment			
TMDL Status		Name	

Background/Ambient Data		Data Source
pH (SU)	7.0	Default value
Temperature (°C)	20	Default temp. for a CWF stream
$CBOD_5$ (mg/L)	2	Default value
NH_3-N (mg/L)	0.1	Default value

Nearest Downstream Public Water Supply Intake		PA American Water Co. – Ellwood District	
PWS Waters	Connoquenessing Creek	Flow at Intake (cfs)	67
PWS RMI	0.01	Distance from Outfall (mi)	Approx. 24.5 miles

Changes Since Last Permit Issuance: The old intake on Slippery Rock Creek was decommissioned.

Other Comments: Slippery Rock Campground is a 0.1 MGD sewage discharge, located approx. 0.63 mi above this proposed discharge. Due to dilution, the Campground discharge only needs to treat to secondary treatment standards. The DO model shows the stream returns to its background conditions just downstream of the Campground's discharge point. Therefore, the Travel Stop discharge will be modeled separately.

Discharge, Receiving Waters and Water Supply Information

Outfall No.	002	Design Flow (MGD)	0.4
Latitude	41º 2' 9"	Longitude	-80º 7' 32"
Quad Name	Harlansburg	Quad Code	04033
Wastewater Description:	Miscellaneous Wastewater and Stormwater		
Receiving Waters	Unnamed tributary to Slippery Rock Creek	Stream Code	34023
NHD Com ID	126223829	RMI	18.95
Drainage Area	0	Yield (cfs/mi^2)	0
Q_{7-10} Flow (cfs)	0	Q_{7-10} Basis	Dry Swale
Elevation (ft)	1118	Slope (ft/ft)	
Watershed No.	20-C	Chapter 93 Class.	CWF
Existing Use		Existing Use Qualifier	
Exceptions to Use		Exceptions to Criteria	
Assessment Status	Attaining Use(s)		
Cause(s) of Impairment			
Source(s) of Impairment			
TMDL Status		Name	

Background/Ambient Data		Data Source
pH (SU)	7.0	Default value
Temperature (°C)	20	Default temp. for a CWF stream
$CBOD_5$ (mg/L)	2	Default value
NH_3-N (mg/L)	0.1	Default value

Nearest Downstream Public Water Supply Intake		PA American Water Co. – Ellwood District	
PWS Waters	Connoquenessing Creek	Flow at Intake (cfs)	67
PWS RMI	0.01	Distance from Outfall (mi)	Approximately 24.5 miles

Changes Since Last Permit Issuance:

Other Comments: Overflow from the pond is approximately 260 feet distance from Slippery Rock Creek

Treatment Facility Summary

Treatment Facility Name: Loves Travel Stop Slippery Rock

WQM Permit No.	Issuance Date
1018406	8/30/2018

Waste Type	Degree of Treatment	Process Type	Disinfection	Avg Annual Flow (MGD)
Sewage	Secondary	Extended Aeration	Ultraviolet	0.009

Hydraulic Capacity (MGD)	Organic Capacity (lbs/day)	Load Status	Biosolids Treatment	Biosolids Use/Disposal
0.009	13.36	Not Overloaded	None	Other WWTP

Changes Since Last Permit Issuance: N/A

Other Comments: Wastewater from floor drains in a maintenance shop, wash water around the diesel pump dispenser area both go through an API oil/water separator followed by a stormwater detention/infiltration basin prior to discharge. The basin is designed for a 25-year storm event.

Compliance History	
Summary of DMRs:	Eleven effluent limit violations have been reported since initial plant startup in August 2019, two of which were directly related to startup activities. The nine latest ones were for fecal coliform (5), pH (2), dissolved oxygen, and TSS.
Summary of Inspections:	A compliance evaluation inspection was conducted on 8/12/2020. Th inspection report did not report any violations. The report did recommend installing a backup generator for the plant and also the addition of a sludge holding tank.

Other Comments: N/A

Compliance History

DMR Data for Outfall 001 (from March 1, 2024 to February 28, 2025)

Parameter	FEB-25	JAN-25	DEC-24	NOV-24	OCT-24	SEP-24	AUG-24	JUL-24	JUN-24	MAY-24	APR-24	MAR-24
Flow (MGD) Average Monthly	0.0072	0.0074	0.0071	0.0072	0.0072	0.0074	0.0072	0.0071	0.007	0.0072	0.0071	0.0068
pH (S.U.) Instantaneous Minimum	6.02	7.3	7.46	7.41	7.33	7.19	7.23	7.32	7.01	7.04	7.33	7.45
pH (S.U.) Instantaneous Maximum	8.57	8.23	8.43	8.2	7.99	8.48	8.48	8.21	7.99	8.31	8.02	8.32
DO (mg/L) Instantaneous Minimum	7.45	4.1	4.06	4.19	6.27	7.08	7.23	4.19	4.47	4.05	5.81	8.14
CBOD5 (mg/L) Average Monthly	< 2.0	8.4	9.1	< 2.0	< 2.0	< 2.0	< 2.0	2.6	6.3	4.8	8.5	< 2.0
TSS (mg/L) Average Monthly	< 5.0	6.5	6.5	< 5.0	< 5.0	< 5.0	< 5.0	11.5	< 5.0	5.0	5.0	< 5.0
Fecal Coliform (No./100 ml) Geometric Mean	3	49	237	< 1.0	< 1.0	3	4	< 1	11	< 2	126	5
Fecal Coliform (No./100 ml) Instantaneous Maximum	9	2440	1120	< 1.0	< 1.0	7	5	< 1	115	3	1986	29
UV Intensity (µw/cm²) Average Monthly	100.0	100.0	100.0	100	100	100.0	100.0	100	100.0	100	100.0	100
Total Nitrogen (mg/L) Daily Maximum			4.83						0.729			
Ammonia (mg/L) Average Monthly					0.308	0.313	0.285	1.81	1.76	0.71		
Total Phosphorus (mg/L) Daily Maximum			2.23						0.81			

Development of Effluent Limitations

Outfall No. 001 **Design Flow (MGD)** 0.009
Latitude 41º 2' 11" **Longitude** -80º 7' 36"
Wastewater Description: Sewage Effluent

Technology-Based Limitations

The following technology-based limitations apply, subject to water quality analysis and BPJ where applicable:

Parameter	Limit (mg/l)	SBC	Federal Regulation	State Regulation
$CBOD_5$	25	Average Monthly	133.102(a)(4)(i)	92a.47(a)(1)
	40	Average Weekly	133.102(a)(4)(ii)	92a.47(a)(2)
Total Suspended Solids	30	Average Monthly	133.102(b)(1)	92a.47(a)(1)
	45	Average Weekly	133.102(b)(2)	92a.47(a)(2)
pH	6.0 – 9.0 S.U.	Min – Max	133.102(c)	95.2(1)
Fecal Coliform (5/1 – 9/30)	200 / 100 ml	Geo Mean	-	92a.47(a)(4)
Fecal Coliform (5/1 – 9/30)	1,000 / 100 ml	IMAX	-	92a.47(a)(4)
Fecal Coliform (10/1 – 4/30)	2,000 / 100 ml	Geo Mean	-	92a.47(a)(5)
Fecal Coliform (10/1 – 4/30)	10,000 / 100 ml	IMAX	-	92a.47(a)(5)
Total Residual Chlorine	0.5	Average Monthly	-	92a.48(b)(2)
E Coli	Report (No./100 ml)	IMAX		92a.61

Comments: Monitoring for E. coli is placed in the permit in accordance with the Department's SOP entitled "Establishing Effluent Limitations for Individual Sewage Permits."

Total residual chlorine limits are not applicable due to the use of UV for disinfection.

Water Quality-Based Limitations

The following limitations were determined through water quality modeling (output files attached):

Parameter	Limit (mg/l)	SBC	Model
N/A	---	---	---

Comments: Modeling did not determine the need for any WQBELs.

Best Professional Judgment (BPJ) Limitations

Comments: A dissolved oxygen limit of 4.0 mg/l was placed in the permit in accordance with the Department's SOP entitled "Establishing Effluent Limitations for Individual Sewage Permits."

Other Considerations

Monitoring for ammonia nitrogen, total nitrogen, total phosphorus, and UV intensity was placed in the permit in accordance with the Department's SOP entitled "Establishing Effluent Limitations for Individual Sewage Permits."

Anti-Backsliding

N/A

Development of Effluent Limitations

Outfall No. 002 **Design Flow (MGD)** 0
Latitude 41º 2' 9" **Longitude** -80º 7' 32"
Wastewater Description: Miscellaneous Wastewater and Stormwater

Technology-Based Limitations

The following technology-based limitations apply, subject to water quality analysis and BPJ where applicable:

Parameter	Limit (mg/l)	SBC	Federal Regulation	State Regulation
	15	Average Monthly		95.2(2)(ii)
Oil & Grease	30	IMAX		95.2(2)(ii)
pH	6.0 – 9.0 S.U.	Min – Max	133.102(c)	95.2(1)

Comments:

Water Quality-Based Limitations

Comments: Due to the design of the sediment pond and outfall pipe structure, it is likely that this facility will not constantly discharge and likely wouldn't be discharging in low-flow conditions (Q_{7-10}). Therefore, modeling was not performed for this discharge, as the models are based on low-flow conditions.

Best Professional Judgment (BPJ) Limitations

Comments: None

Additional Considerations

Comments: Monitoring for flow, TSS, total nitrogen, and total phosphorus will be placed in the permit for this outfall under the authority of Chapter 92a.61.

Anti-Backsliding

N/A

Proposed Effluent Limitations and Monitoring Requirements

The limitations and monitoring requirements specified below are proposed for the draft permit, and reflect the most stringent limitations amongst technology, water quality and BPJ. Instantaneous Maximum (IMAX) limits are determined using multipliers of 2 (conventional pollutants) or 2.5 (toxic pollutants). Sample frequencies and types are derived from the "NPDES Permit Writer's Manual" (386-0400-001), SOPs and/or BPJ.

Outfall 001, Effective Period: Permit Effective Date through Permit Expiration Date.

Parameter	Effluent Limitations						Monitoring Requirements	
	Mass Units (lbs/day) (1)		Concentrations (mg/L)				Minimum (2) Measurement Frequency	Required Sample Type
	Average Monthly	Average Weekly	Minimum	Average Monthly	Daily Maximum	Instant. Maximum		
Flow (MGD)	Report	XXX	XXX	XXX	XXX	XXX	1/week	Measured
pH (S.U.)	XXX	XXX	6.0 Daily Min	XXX	9.0	XXX	1/day	Grab
D.O.	XXX	XXX	4.0 Daily Min	XXX	XXX	XXX	1/day	Grab
CBOD5	XXX	XXX	XXX	25.0	XXX	50.0	2/month	Grab
TSS	XXX	XXX	XXX	30.0	XXX	60.0	2/month	Grab
Fecal Coliform (No./100 ml) Oct 1 - Apr 30	XXX	XXX	XXX	2000 Geo Mean	XXX	10000	2/month	Grab
Fecal Coliform (No./100 ml) May 1 - Sep 30	XXX	XXX	XXX	200 Geo Mean	XXX	1000	2/month	Grab
E. Coli (No./100 ml)	XXX	XXX	XXX	XXX	Report	XXX	1/year	Grab
UV Intensity (µw/cm²)	XXX	XXX	XXX	Report	XXX	XXX	1/day	Measured
Total Nitrogen	XXX	XXX	XXX	XXX	Report	XXX	1/year	Grab
Ammonia	XXX	XXX	XXX	XXX	Report	XXX	1/month	Grab
Total Phosphorus	XXX	XXX	XXX	XXX	Report	XXX	1/year	Grab

Compliance Sampling Location: Outfall 001 (after disinfection)

Proposed Effluent Limitations and Monitoring Requirements

The limitations and monitoring requirements specified below are proposed for the draft permit, and reflect the most stringent limitations amongst technology, water quality and BPJ. Instantaneous Maximum (IMAX) limits are determined using multipliers of 2 (conventional pollutants) or 2.5 (toxic pollutants). Sample frequencies and types are derived from the "NPDES Permit Writer's Manual" (386-0400-001), SOPs and/or BPJ.

Outfall 002, Effective Period: Permit Effective Date through Permit Expiration Date.

Parameter	Effluent Limitations						Monitoring Requirements	
	Mass Units (lbs/day) (1)		Concentrations (mg/L)				Minimum (2) Measurement Frequency	Required Sample Type
	Average Monthly	Daily Maximum	Minimum	Average Monthly	Daily Maximum	Instant. Maximum		
Flow (MGD)	Report	Report	XXX	XXX	XXX	XXX	1/week	Estimate
pH (S.U.)	XXX	XXX	6.0 Daily Min	XXX	9.0	XXX	1/week	Grab
TSS	Report	Report	XXX	Report	Report	XXX	2/month	Grab
Oil and Grease	XXX	XXX	XXX	15.0	XXX	30.0	2/month	Grab
Total Nitrogen	XXX	Report	XXX	XXX	Report	XXX	1/6 months	Grab
Total Phosphorus	XXX	Report	XXX	XXX	Report	XXX	1/6 months	Grab

Compliance Sampling Location: Outfall 002 (prior to mixing with any other waters)

Input Data WQM 7.0

SWP Basin	Stream Code	Stream Name	RMI	Elevation (ft)	Drainage Area (sq mi)	Slope (ft/ft)	PWS Withdrawal (mgd)	Apply FC
20C	34032	SLIPPERY ROCK CREEK	**19.000**	1124.00	263.50	0.00000	0.00	☑

Stream Data

Design Cond.	LFY (cfsm)	Trib Flow (cfs)	Stream Flow (cfs)	Rch Trav Time (days)	Rch Velocity (fps)	WD Ratio	Rch Width (ft)	Rch Depth (ft)	Tributary Temp (°C)	Tributary pH	Stream Temp (°C)	Stream pH
Q7-10	0.131	0.00	0.00	0.000	0.000	0.0	0.00	0.00	20.00	7.00	0.00	0.00
Q1-10		0.00	0.00	0.000	0.000							
Q30-10		0.00	0.00	0.000	0.000							

Discharge Data

Name	Permit Number	Existing Disc Flow (mgd)	Permitted Disc Flow (mgd)	Design Disc Flow (mgd)	Reserve Factor	Disc Temp (°C)	Disc pH
Loves Tvl Stop	PA0265829	0.0090	0.0000	0.0000	0.000	20.00	7.60

Parameter Data

Parameter Name	Disc Conc (mg/L)	Trib Conc (mg/L)	Stream Conc (mg/L)	Fate Coef (1/days)
CBOD5	25.00	2.00	0.00	1.50
Dissolved Oxygen	4.00	8.24	0.00	0.00
NH3-N	25.00	0.10	0.00	0.70

Input Data WQM 7.0

SWP Basin	Stream Code	Stream Name	RMI	Elevation (ft)	Drainage Area (sq mi)	Slope (ft/ft)	PWS Withdrawal (mgd)	Apply FC
20C	34032	SLIPPERY ROCK CREEK	**17.760**	1092.00	364.00	0.00000	0.00	☑

Stream Data

Design Cond.	LFY (cfsm)	Trib Flow (cfs)	Stream Flow (cfs)	Rch Trav Time (days)	Rch Velocity (fps)	WD Ratio	Rch Width (ft)	Rch Depth (ft)	Tributary Temp (°C)	Tributary pH	Stream Temp (°C)	Stream pH
Q7-10	0.131	0.00	0.00	0.000	0.000	0.0	0.00	0.00	20.00	7.00	0.00	0.00
Q1-10		0.00	0.00	0.000	0.000							
Q30-10		0.00	0.00	0.000	0.000							

Discharge Data

Name	Permit Number	Existing Disc Flow (mgd)	Permitted Disc Flow (mgd)	Design Disc Flow (mgd)	Reserve Factor	Disc Temp (°C)	Disc pH
		0.0000	0.0000	0.0000	0.000	25.00	7.00

Parameter Data

Parameter Name	Disc Conc (mg/L)	Trib Conc (mg/L)	Stream Conc (mg/L)	Fate Coef (1/days)
CBOD5	25.00	2.00	0.00	1.50
Dissolved Oxygen	3.00	8.24	0.00	0.00
NH3-N	25.00	0.00	0.00	0.70

WQM 7.0 Hydrodynamic Outputs

SWP Basin	Stream Code	Stream Name
20C	34032	SLIPPERY ROCK CREEK

RMI	Stream Flow (cfs)	PWS With (cfs)	Net Stream Flow (cfs)	Disc Analysis Flow (cfs)	Reach Slope (ft/ft)	Depth (ft)	Width (ft)	W/D Ratio	Velocity (fps)	Reach Trav Time (days)	Analysis Temp (°C)	Analysis pH
Q7-10 Flow												
19.000	34.52	0.00	34.52	.0139	0.00489	.923	83.71	90.72	0.45	0.169	20.00	7.00
Q1-10 Flow												
19.000	22.09	0.00	22.09	.0139	0.00489	NA	NA	NA	0.35	0.218	20.00	7.00
Q30-10 Flow												
19.000	46.95	0.00	46.95	.0139	0.00489	NA	NA	NA	0.53	0.143	20.00	7.00

WQM 7.0 Modeling Specifications

Parameters	Both	Use Inputted Q1-10 and Q30-10 Flows	☑
WLA Method	EMPR	Use Inputted W/D Ratio	☐
Q1-10/Q7-10 Ratio	0.64	Use Inputted Reach Travel Times	☐
Q30-10/Q7-10 Ratio	1.36	Temperature Adjust Kr	☑
D.O. Saturation	90.00%	Use Balanced Technology	☑
D.O. Goal	6		

WQM 7.0 Wasteload Allocations

SWP Basin	Stream Code	Stream Name
20C	34032	SLIPPERY ROCK CREEK

NH3-N Acute Allocations

RMI	Discharge Name	Baseline Criterion (mg/L)	Baseline WLA (mg/L)	Multiple Criterion (mg/L)	Multiple WLA (mg/L)	Critical Reach	Percent Reduction
19.000	Loves Tvl Stop	16.76	50	16.76	50	0	0

NH3-N Chronic Allocations

RMI	Discharge Name	Baseline Criterion (mg/L)	Baseline WLA (mg/L)	Multiple Criterion (mg/L)	Multiple WLA (mg/L)	Critical Reach	Percent Reduction
19.000	Loves Tvl Stop	1.89	25	1.89	25	0	0

Dissolved Oxygen Allocations

RMI	Discharge Name	CBOD5		NH3-N		Dissolved Oxygen		Critical Reach	Percent Reduction
		Baseline (mg/L)	Multiple (mg/L)	Baseline (mg/L)	Multiple (mg/L)	Baseline (mg/L)	Multiple (mg/L)		
19.00	Loves Tvl Stop	25	25	25	25	4	4	0	0

WQM 7.0 D.O.Simulation

SWP Basin	Stream Code	Stream Name
20C	34032	SLIPPERY ROCK CREEK

RMI	Total Discharge Flow (mgd)	Analysis Temperature (°C)	Analysis pH
19.000	0.009	20.000	7.000
Reach Width (ft)	**Reach Depth (ft)**	**Reach WDRatio**	**Reach Velocity (fps)**
83.706	0.923	90.723	0.447
Reach CBOD5 (mg/L)	**Reach Kc (1/days)**	**Reach NH3-N (mg/L)**	**Reach Kn (1/days)**
2.01	0.007	0.11	0.700
Reach DO (mg/L)	**Reach Kr (1/days)**	**Kr Equation**	**Reach DO Goal (mg/L)**
8.241	10.194	Tsivoglou	6
Reach Travel Time (days)			
0.169			

Subreach Results

TravTime (days)	CBOD5 (mg/L)	NH3-N (mg/L)	D.O. (mg/L)
0.017	2.01	0.11	8.24
0.034	2.01	0.11	8.24
0.051	2.01	0.11	8.24
0.068	2.01	0.10	8.24
0.085	2.01	0.10	8.24
0.102	2.01	0.10	8.24
0.119	2.01	0.10	8.24
0.136	2.01	0.10	8.24
0.153	2.01	0.10	8.24
0.169	2.01	0.10	8.24

WQM 7.0 Effluent Limits

SWP Basin	Stream Code	Stream Name
20C	34032	SLIPPERY ROCK CREEK

RMI	Name	Permit Number	Disc Flow (mgd)	Parameter	Effl. Limit 30-day Ave. (mg/L)	Effl. Limit Maximum (mg/L)	Effl. Limit Minimum (mg/L)
19.000	Loves Tvl Stop	PA0265829	0.009	CBOD5	25		
				NH3-N	25	50	
				Dissolved Oxygen			4

Loves Travel Stop Slippery Rock
Worth Township, Butler County
PA0265829 Discharge pH

Outfall 001

Date	pH min	pH max	10^ -pH min	10^ -pH max	& pH max)	-Log (Ave pH)
Jul-22	7.64	8.01	2.29E-08	9.77E-09	1.63E-08	**7.8**
Aug-22	7.14	8.13	7.24E-08	7.41E-09	3.99E-08	**7.4**
Sep-22	7.60	8.16	2.51E-08	6.92E-09	1.6E-08	**7.8**
Jul-23	7.23	8.1	5.89E-08	7.94E-09	3.34E-08	**7.5**
Aug-23	7.17	8.44	6.76E-08	3.63E-09	3.56E-08	**7.4**
Sep-23	7.66	8.33	2.19E-08	4.68E-09	1.33E-08	**7.9**
Jul-24	7.32	8.21	4.79E-08	6.17E-09	2.7E-08	**7.6**
Aug-24	7.23	8.48	5.89E-08	3.31E-09	3.11E-08	**7.5**
Sep-24	7.19	8.48	6.46E-08	3.31E-09	3.39E-08	**7.5**
					Median:	**7.6**