



SL1801 RDH Flow Study for LGE

Blake Wells

LGE Design Build

1200 N. 52nd St, Phoenix, AZ 85008

SL1801 RDH Flow Study, 1 site total in Scottsdale, AZ from Friday 12-13-24 to Monday 12-23-24.

Equipment for Site: Hach 901 Logger with Flo-Dar Sensor (Area Velocity).

The equipment was installed on Friday, 12/13/24 with confined space entry, pipe size confirmed, sensor calibrated, and level depth confirmed to the flow level.

Duration of monitoring: 10 days

Monitor: Flow (gpm), Level (in), and Velocity (fps)

Data logging: 5-minute intervals (No averaged intervals)

Calibration Performed: Calibration method using 12.00-inch target.

Target Measure: 12.00 in Meter Read: 12.02 in 12/13/2024 7:15 am

Meter Validation: PASSED

MH1 located at E. Bahia Dr. North of E. Westworld Dr.

72" Diameter, Rim to Invert: 206.00 inches

25" PVC pipe, flowing East.

No Lateral(s).

The pipe condition is intact with a thin layer of scum on the walls.

Scum line of 9.00 inches

Flo-Dar installed pointing upstream in the 25" pipe channel.

Flow Data is valid having no missing, erroneous, or anomalies with data.

Attached is a MS Excel summary showing level, velocity, and flow logged at 5-minute intervals during the monitoring period.

RDH Environmental Services

Jeff Schulte

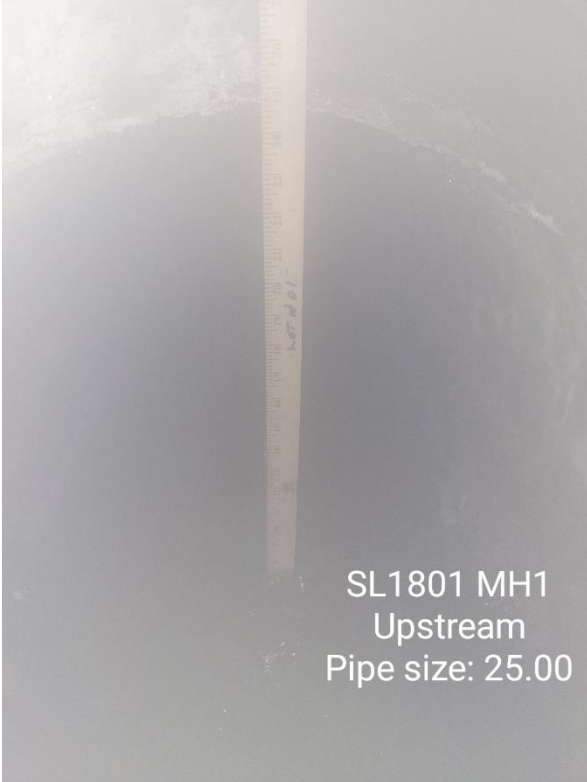
Operations Manager

servicemanager@rdh-env.com



SL1801 RDH Flow Study for LGE

Pictures:





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Period Summaries:

LGE COS MH1 Period Summary: Flow				
Measures	Value	Unit	Date	Time
Max.	978.72	gpm	Saturday, December 21, 2024	11:15 AM
Min.	248.31	gpm	Saturday, December 14, 2024	6:15 AM
Avg.	597.64	gpm		
Total	8,620,956.71	gal		

LGE COS MH1 Period Summary: Level				
Measures	Value	Unit	Date	Time
Max.	10.05	in	Sunday, December 22, 2024	11:20 AM
Min.	5.08	in	Sunday, December 15, 2024	6:40 AM
Avg.	7.85	in		

LGE COS MH1 Period Summary: Velocity				
Measures	Value	Unit	Date	Time
Max.	1.76	fps	Thursday, December 19, 2024	7:50 AM
Min.	0.97	fps	Friday, December 13, 2024	7:30 AM
Avg.	1.42	fps		

*Data begins at 7:25 am on December 13th and ends at 7:50 am on December 23rd.



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Site Map:



CONFINED SPACE ENTRY PERMIT

ALL COPIES OF PERMIT WILL REMAIN AT JOB SITE UNTIL JOB IS COMPLETED

LOCATION/DESCRIPTION OF CONFINED SPACE

SL 1201 MH1

PURPOSE OF ENTRY

Flow Study Install

EXPECTED HAZARDOUS

Gases

COMMUNICATIONS

Hand & Verbal

ENTRY SUPERVISOR

Jordan Astemborski

DATE

12/13/24

TIME

6:45am

EXPIRATION

12:00pm 12/13/24

SPECIAL REQUIREMENTS BEFORE ENTRY:

	YES	NO		YES	NO
Lockout De-energize - Test and Verify		☒	Escape Harness Required	☒	
Lines Broken - Capped or Blanked		☒	Tripod Emergency Escape Unit	☒	
Purge - Flush and Vent		☒	Lifelines		☒
Ventilation		☒	Fire Extinguishers		☒
Secure Area (Post and Flag)	☒		Lighting (Explosion proof)	☒	
Breathing Apparatus		☒	Protective Clothing	☒	
Resucitator - Inhalator		☒	Respirator		☒

TEST INTERVAL 15 Min

TEST(S) TO BE TAKEN / ACCEPTABLE ENTRY CONDITIONS

DO NOT ENTER IF PERMISSIBLE ENTRY LEVELS

ARE EXCEEDED

		DATE	TESTER	TIME	AM/PM								
Permissible Entry Level		12/13	JA	6:50	AM	12/14	JA	7:05	AM	12/15	JA	7:20	AM
% of Oxygen	19.5% to 23.5%					20.9		20.9		20.9			
^ of L.F.L.* (Gas/Vapor/Mist)	Less than 10%					0		0		0			
Carbon Monoxide	35 ppm (8 hr.)					0		0		0			
Aromatic Hydrocarbon	1 ppm (8 hr.)					0		0		0			
Hydrogen Sulfide	10 ppm (8 hr.)					0		0		0			
Sulfur Dioxide	2 ppm (8 hr.)					0		0		0			
Ammonia	25 ppm (8 hr.)					0		0		0			

NAME OF GAS TERSTER(S)

NOTE: Continuous/periodic tests shall be established before beginning the job.

Any questions pertaining to test requirements should be directed to

TESTING INSTRUMENTS USED

Honeywell

NAME

BW Tech

TYPE

GasAlertMax XT II

IDENTIFICATION NUMBER

XT-XWHM-Y-NA MA215-026608

AUTHORIZED ENTRANTS

Zac Schulte

AUTHORIZED ATTENDANTS

Jordan Astemborski

PERMIT AUTHORIZATION

I certify that all actions and conditions necessary for safe entry have been performed

Jordan Astemborski

NAME (Print)

Signature

12/13/24

DATE

7:30am

TIME

IN CASE OF AN EMERGENCY CALL 911

RDH Environmental Services (602) 381-1960

CONFINED SPACE ENTRY PERMIT

ALL COPIES OF PERMIT WILL REMAIN AT JOB SITE UNTIL JOB IS COMPLETED

LOCATION/DESCRIPTION OF CONFINED SPACE

LGE Design

PURPOSE OF ENTRY

Removal of Flow Study

EXPECTED HAZARDOUS

Gases

COMMUNICATIONS

Hand & Verbal

ENTRY SUPERVISOR

Jordan Astemborski

DATE

12/23/24

TIME

7:30am

EXPIRATION

12:00pm 12/23/24

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	YES	NO		YES	NO
Lockout De-energize - Test and Verify		☒	Escape Harness Required	☒	
Lines Broken - Capped or Blanked		☒	Tripod Emergency Escape Unit	☒	
Purge - Flush and Vent		☒	Lifelines		☒
Ventilation		☒	Fire Extinguishers		☒
Secure Area (Post and Flag)	☒		Lighting (Explosion proof)	☒	
Breathing Apparatus		☒	Protective Clothing	☒	
Resucitator - Inhalator		☒	Respirator		☒

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DO NOT ENTER IF PERMISSIBLE ENTRY LEVELS
ARE EXCEEDED

	Permissible Entry Level	DATE	TESTER	TIME	AM/PM									
		<u>12/23/24</u>	<u>SA</u>	<u>7:40</u>	<u>AM</u>									
% of Oxygen	19.5% to 23.5%			<u>20.9</u>	<u>20.9</u>									
^ of L.F.L.* (Gas/Vapor/Mist)	Less than 10%			<u>0</u>	<u>0</u>									
Carbon Monoxide	35 ppm (8 hr.)			<u>0</u>	<u>0</u>									
Aromatic Hydrocarbon	1 ppm (8 hr.)			<u>0</u>	<u>0</u>									
Hydrogen Sulfide	10 ppm (8 hr.)			<u>0</u>	<u>0</u>									
Sulfur Dioxide	2 ppm (8 hr.)			<u>0</u>	<u>0</u>									
Ammonia	25 ppm (8 hr.)			<u>0</u>	<u>0</u>									

NAME OF GAS TESTER(S)

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AUTHORIZED ATTENDANTS

Jordan Astemborski

PERMIT AUTHORIZATION

I certify that all actions and conditions necessary for safe entry have been performed

Jordan Astemborski

NAME (Print)

[Signature]

Signature

12/23/24

DATE

8:00am

TIME

IN CASE OF AN EMERGENCY CALL 911

RDH Environmental Services (602) 381-1960