



Closed Loop Gas Capture

Ophelia 27 #1H

Q3 2022 Report

1. Introduction

NMOCD Order R-21747, Paragraph 16, requires quarterly project status updates from EOG Resources on the Ophelia 27 #1H (30-025-41114) Closed Loop Gas Capture (CLGC) well. The following document outlines the activities that have taken place since the previous update submitted June 10, 2022.

2. Project Activity Summary

EOG increased usage of the Ophelia 27 #1H CLGC system since the previous report. This was a direct consequence of increased market upsets and maintenance outages during the report period. Injection occurred on 19 days, with material cumulative volumes recorded for all of them. Volume data (Table 1) and a representative recovery chart (Figure 1) are included in Section 3 of this report.

The report period represents a high-water mark for EOG's integration of CLGC into day-to-day operations. EOG's Control Room was proactive and quick to approve the activation of the system during market disruptions, mitigating what would otherwise be significant high pressure flare volumes and/or production outages. An analysis of this is included in Section 4.

3. Injection & Recovery Data

Table 1 summarizes the daily injection totals for the dates that injection took place during the report period. As can be inferred from the data grouping, the outages during the report period were typically multi-day events and of a larger magnitude than what has been seen in previous reports.

Date	Injection Volume [MSCF]	Injection Time [hours]
06/11/2022	1,419.3	11.12
06/12/2022	602.4	8.45
06/13/2022	419.2	3.97
07/24/2022	679.7	4.67
07/25/2022	1,303.5	23.25
07/26/2022	7,259.6	12.05
07/27/2022	73.0	0.80
07/28/2022	273.3	2.51
07/29/2022	270.0	2.21
08/04/2022	1,202.1	10.46
08/06/2022	1,131.8	5.92
08/07/2022	15.4	0.51
08/09/2022	507.1	5.37
08/13/2022	1,245.8	9.48
08/15/2022	1,762.7	14.77
08/16/2022	1,066.7	6.31
08/18/2022	581.5	8.02
08/19/2022	86.8	3.65
08/21/2022	1,586.9	11.57
Total	21,486.8	145.09

Table 1: Injection Volume Data for Report Period

Figure 1 shows the gas rate and type curve for the Ophelia 27 #1H between the June 13, 2022 injection and July 24, 2022 injection. The well produced above type curve for most of the period, recovering 74% of the previously injected CLGC gas prior to being SI for injection. EOG continues to monitor the more protracted recovery periods exhibited by the Ophelia 27 #1H in comparison to the Caballo 23 Fed #2H pilot project.

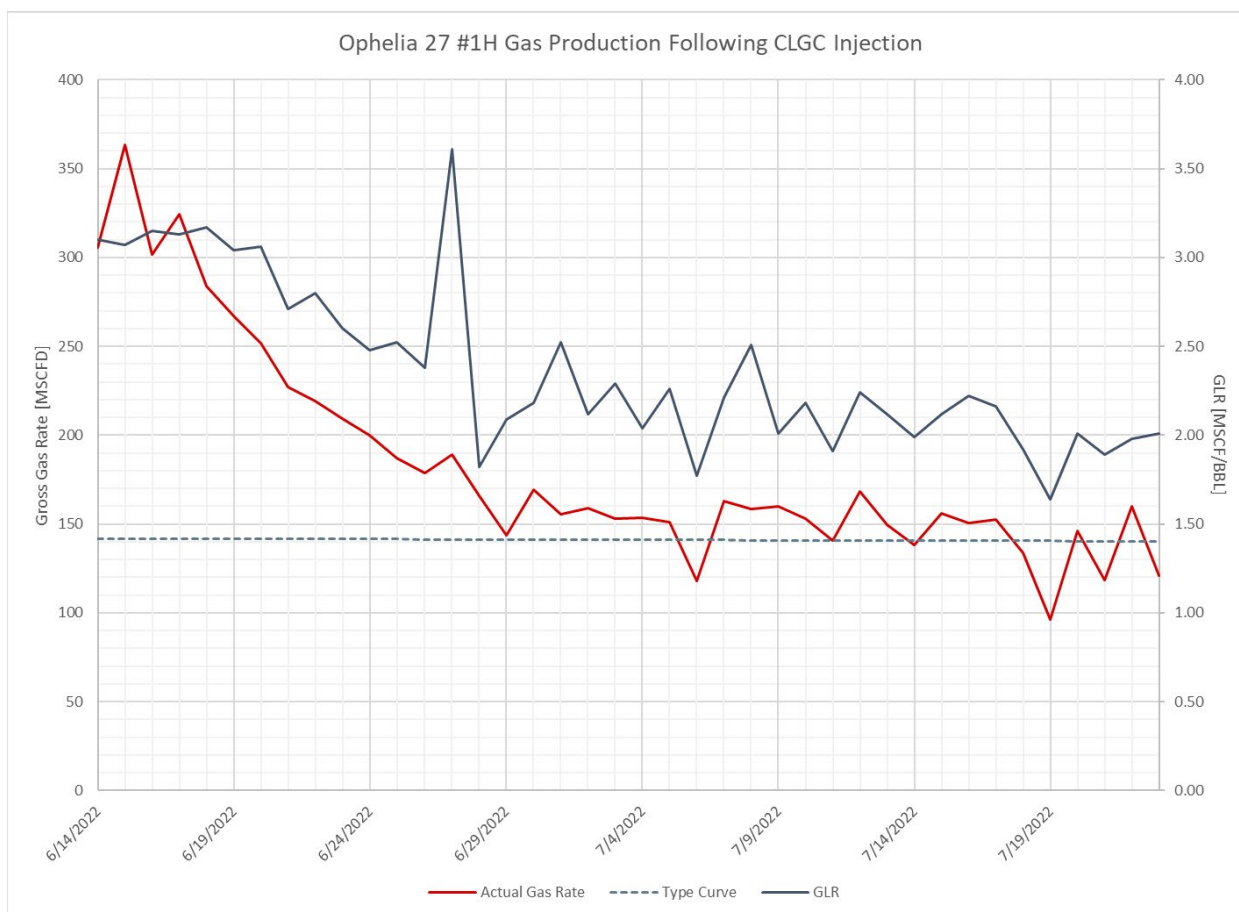


Figure 1: Gas Production/Recovery Profile Following June 13, 2022 Injection

4. Operations Review

EOG was able to deploy the Ophelia 27 #1H CLGC system strategically and dynamically during the report period by leveraging strong integration with field production and gathering operations. This had a material impact on flaring and production curtailment, totaling an estimated 1,888 MT CO₂e in avoided flare emissions and 6,474 BBL of produced oil, as broken down by month in Table 2.

Month	Associated Oil Volume [BBL]	Est. Flare Emissions Avoided [MT CO ₂ e]
June	1,032	301
July	2,817	822
August	2,625	766
Total	6,474	1,888

Table 2: Ophelia 27 #1H CLGC Associated Impact Data for Report Period

5. Conclusion

Since the previous report submitted June 10, 2022, EOG utilized the Ophelia 27 #1H for CLGC injection on 19 occasions. The CLGC system made a significant impact during market disruptions/outages during the report period, preventing an estimated 1,888 MT CO₂e in flare emissions. EOG observed high gas recovery percentages, but is monitoring the protracted recovery periods as compared to the Caballo 23 Fed #2H pilot project.

For the next report period, EOG will continue the regular use of the Ophelia 27 #1H as a CLGC injection well with ongoing data capture. Additionally, EOG will perform some high-rate tests to compare the intermediate casing pressure responses to those recently observed on the Caballo 23 Fed #2H.

6. Contacts

Engineering

Ryan Yarger

Sr. Facilities Engineer

(432)-210-7842

Ryan_Yarger@EOGResources.com

Regulatory

Sarah Mitchell

Regulatory Advisor

(432)-425-6637

Sara_Mitchell@EOGResources.com