

## SCC Results Under Simulated Service Conditions

TM0177 and TM0316 | third-party-tested records as shown in the source table

Reported records

**9**

Grades covered

**N08028 / N08535**

Reported exposure

**720 hrs**

Reported result

**No cracks**

This handout recreates the reported SCC table and adds a condition-envelope summary for document use.

### Use note

This PDF reorganizes and summarizes the user-provided SCC result table into an Octal Steel technical handout. The expansion pages explain what condition window is represented by the listed records and how the table can support material review, document preparation, and project communication. It does not replace the original lab report or project-specific material selection validation.

# Reported SCC results table

Recreated from the provided image for cleaner presentation and document use.

No.	Grade	Size	CL-	P H <sub>2</sub> S, MPa	P CO <sub>2</sub> , MPa	Temp, C	Load, MPa	Period, hrs	Result	Date
1	N08535	3-1/2" 9.2 PPF	20000 ppm + S0	7.86	3.12	90	840	720	No cracks	2022.3
2	N08028	7" 26 PPF	150000 ppm	0.57	1.14	120	872	720	No cracks	2021.9
3	N08028	7" 23 PPF	150000 ppm	0.57	1.14	120	907	720	No cracks	2021.7
4	N08535	3-1/2" 9.2 PPF	80000 ppm + 10 g/L S0	5	11	140	780	720	No cracks	2011.10
5	N08028	2-7/8" 6.4 PPF	10000 ppm + 10 g/L S0	5	11	160	900	720	No cracks	2010.8
6	N08028	2-7/8" 6.4 PPF	10000 ppm + 10 g/L S0	5	11	140	900	720	No cracks	2010.8
7	N08535	2-7/8" 6.4 PPF	10000 ppm + 10 g/L S0	5	11	160	780	720	No cracks	2010.8
8	N08535	2-7/8" 6.4 PPF	10000 ppm + 10 g/L S0	5	11	140	780	720	No cracks	2010.8
9	N08535	3-1/2" 9.2 PPF	91000 ppm + 10 g/L S0	1.56	2.51	150	800	720	No cracks	2008.5

**Source note:** The source image states that the above results were tested by the third party.

# Expanded reading notes for simulated-service SCC results

Only summary points directly supported by the reported table are included below.

## Condition envelope represented by the reported records

Parameter	Reported window
Grades	N08028, N08535
Sizes	2-7/8" 6.4 PPF   3-1/2" 9.2 PPF   7" 23/26 PPF
Chloride / chemistry	10000 ppm + 10 g/L S0 up to 150000 ppm; one 20000 ppm + S0 entry
P H2S	0.57 to 7.86 MPa
P CO2	1.14 to 11 MPa
Temperature	90 to 160 C
Load	780 to 907 MPa
Exposure period	720 hrs in all listed records
Reported outcome	All listed entries show No cracks

## Key observations from the source table

- Nine third-party-tested records are listed in the source table.
- Both N08028 and N08535 are represented across tubing/casing style sizes from 2-7/8 in to 7 in.
- All listed entries report 'No cracks' after 720 hours under the stated simulated service conditions.
- The highest reported temperature is 160 C and the highest listed load is 907 MPa.
- The largest reported H2S partial pressure in the table is 7.86 MPa, while the highest reported CO2 partial pressure is 11 MPa.
- The table covers multiple chloride / sulfur combinations, which is useful when presenting a condition-based qualification summary.

## How this page can support project review

- Use the table as a condition-reference summary when discussing sour-service material history with clients, inspectors, or engineering teams.
- Keep the underlying third-party report, heat traceability, and project-specific material selection review in the final document package.
- Before quoting or approving material, match the requested size, grade, chloride chemistry, H2S / CO2 partial pressure, temperature, and applied stress assumptions to the actual service envelope.

*Summary interpretation only - do not replace original lab data or project engineering approval.*