



When it has to be right.

LTR-TP-21-24

August 31, 2021

U.S. Nuclear Regulatory Commission  
Document Control Desk  
Washington, D.C. 20555-0001  
Phone: (301) 816-5100  
Fax: (301) 816-5151  
E-Mail: EIE@nrc.gov

**SUBJECT:** Final Report Notification Pursuant To 10 CFR Part 21.21, Regarding Supply Of 6" NPS Sch. 40 Seamless Stainless-Steel Pipe; Manufacturer: Maxim Tubes Company PVT. LTD.; Heat No: N200309AW01, SR No: 7; 9 pcs; 180 feet total procured as unqualified source material for ASME Section III, Subsection NC Class 2 2007 Edition, 2008 Addenda

This letter provides a final report in accordance with §21.21 concerning the supply of 6" NPS Sch. 40 Seamless Stainless-Steel Pipe to the Duke / Progress Energy Catawba Nuclear and McGuire Nuclear Stations.

Mackson Nuclear, LLC subcontracted Tioga Pipe, Inc. (Tioga Pipe) to supply the pipe. Tioga Pipe performed utilization of unqualified source material in accordance with ASME NCA-4255.5 on Maxim Tubes Company PVT. LTD. material from Tioga's commercial inventory. While the unqualified source material passed all required tests and examinations in accordance with the requirements of ASME NCA-4255.5, the material was identified with multiple linear indications located on the inside diameter of the pipe. Further evaluation by Tioga Pipe found these indications to be lap-like and thus, rejectable in accordance with ASME SA999 paragraph 28.12. Please see Attachment 1, "Final Report Notification Information per §21.21", for additional details and clarification.

All material supplied from the same heat and lot number from Maxim Tubes Company PVT. LTD. has been identified by Duke, found not be installed, and returned to Tioga Pipe. At this time, all of the defective material is in Tioga's possession and there is no risk of this defective material being installed into a nuclear facility.

If you have any questions, please feel free to contact me at (713) 512-3569 or our Quality Director, Bryan Nichols, at (484) 546-5613.

Regards,  


William Kotcher  
President  
Tioga Pipe Inc.



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Enclosures:

- 1) Attachment 1, Final Report Notification Information per §21.21
- 2) Duke Energy Part 21 Letter to Mackson July 2021
- 3) Laboratory Testing Inc. Certified Test Report, TPS001-21-08-24454-1

Cc:

Andrew Keiser, Tioga  
David Keiser, Tioga  
Bryan Nichols, Tioga  
Richard Crowley, Tioga  
Glenn Reigel, Tioga  
Shannon Echols, Mackson

A handwritten signature in black ink, appearing to be a stylized 'A' or similar character.

**Attachment 1**  
**Final Report Notification Information per §21.21**

**I. Name and address of the individual or individuals informing the Commission:**

William Kotcher  
President  
Tioga Pipe Inc.  
14950 Heathrow Forest Parkway, Suite 390  
Houston, TX 77032

**II. Identification of the facility, the activity, or the basic component supplied for such facility which fails to comply or contains a defect.**

- 6" NPS Sch. 40 Seamless Stainless-Steel Pipe; Manufacturer: Maxim Tubes Company PVT. LTD.; Heat No: N200309AW01, SR No: 7; 9 pcs; 180 feet total procured as unqualified source material for ASME Section III, Subsection NC Class 2 2007 Edition, 2008 Addenda.
- 100 feet delivered to the Catawba Nuclear Station on PO 00154619 00971 and 80 feet delivered to the McGuire Nuclear Station on PO 00154619 00978 and 00154619 01012.
- Tioga Sales Orders: SO 354874 Position 20, SO 355032 Position 20, and SO 358008 Position 10.

**III. Identification of the firm constructing the facility or supplying the basic component which fails to comply or contains a defect.**

Tioga Pipe, Inc.

**IV. Nature of the defect or failure to comply and the safety hazard which is created or could be created by such defect or failure to comply.**

Tioga Pipe Inc. purchased unqualified source material from Maxim Tubes Company PVT. LTD. The unqualified source material passed all required tests and examinations in accordance with the requirements of ASME NCA-4255.5 however the material was identified with multiple linear indications located on the inside diameter of the pipe. The indications were discovered by Duke Energy during their pre-fabrication inspection at the Catawba Nuclear Station. The indications ranged from ¼" to well over an inch in length. This material along with the material with the same heat number at McGuire Nuclear Station was returned to Tioga Pipe for further evaluation. The evaluation found these indications to be lap-like and thus, rejectable in accordance with ASME SA999 paragraph 28.12.



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**V. The date on which the information of such defect or failure to comply was obtained.**

- Duke Energy notified Mackson Nuclear and Tioga Pipe, inc. of the linear indications on July 21, 2021. At that time, it could not be determined if the linear indications were rejectable in accordance with ASME SA312 and SA999.
- The material was returned to Tioga for further evaluation on 7/30/2021.
- A sample of the material containing the linear indications shipped to Tioga's approved supplier of destructive testing, Laboratory Testing, Inc. (LTI) on 8/17/2021 for microstructure examination.
- The microstructure examination was completed on 8/20/2021.
- Tioga received the LTI test report, TPS001-21-08-24454-1 determining the material to contain defects on 8/30/2021.

**VI. In the case of a basic component which contains a defect or fails to comply, the number and location of these components in use at, supplied for, being supplied for, or may be supplied for, manufactured, or being manufactured for one or more facilities or activities subject to the regulations in this part.**

(9 pcs) 20 ft long pieces = 180 total linear feet supplied with 100 feet delivered to Catawba Nuclear Station on PO 00154619 00971 and 80 feet delivered to the McGuire Nuclear Station on PO 00154619 00978 and 00154619 01012. All 180 feet have been returned to Tioga Pipe, Inc.

**VII. The corrective action, which has been, is being, or will be taken; the name of the individual or organization responsible for the action; and the length of time that has been or will be taken to complete the action.**

Tioga Pipe Corrective Action, N-CAR-21-08 has been generated and Bryan Nichols, Quality Director is responsible for completing and closing this corrective action.

**Completed Actions:**

1. Extent of condition: The extent of condition is limited to above identified 180 feet and the additional 151 feet in Tioga's commercial inventory.
2. Tioga has replaced the 180 feet supplied to Duke with different material supplied by different mills (120 feet of Salzgitter Mannesmann, Heat No. 350470, Lot No. QL30151841 and 60 feet of Walsin, Heat No. 11Z037, Lot No. 202010-TG-B30 and 202010-TG-E07).
3. The 180 feet of pipe returned to Tioga has been quarantined and tagged as nonconforming material.
4. Tioga shall not use any material supplied from Maxim Tubes Company PVT. LTD. for nuclear orders until Tioga has been provided with a sufficient corrective action response from Maxim Tubes Company PVT. LTD.





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Open Actions:

5. Prepare and Issue Final Report to NRC – due August 31, 2021.
6. Tioga shall quarantine and tag as nonconforming material the remaining 151 feet in Tioga's commercial inventory – due September 10, 2021.
7. Issue a supplier corrective action to Maxim Tubes Company PVT. LTD. to have them investigate the cause and provide corrective actions for the laps identified on the inside diameter of the above pipes – due September 10, 2021.

**VIII. Any advice related to the defect or failure to comply about the facility, activity, or basic component that has been, is being, or will be given to purchasers or licensees.**

Not applicable. All material from this heat number has already been returned to Tioga Pipe. The returned material has been quarantined and tagged as nonconforming material.

**IX. In the case of an early site permit, the entities to whom an early site permit was transferred.**

Not applicable.



Catawba Nuclear Station

Duke Energy  
CN01VP 14800 Concord Road  
York, SC 29745

July 21, 2021

10 CFR 21

**Mackson**  
**Attention:**  
Shannon Echols, Quality Assurance Manager  
sechols@mackson.biz

**Subject:** Duke Energy Carolinas, LLC (Duke Energy)  
Catawba Nuclear Station, Units 1 and 2  
Request for Mackson Determination of 10 CFR 21 Reportability  
Catawba Nuclear Condition Report (NCR) 02388864  
Catawba Nuclear Station PO 00154619 Rel 00971

**RE:** Linear Indications identified on 6" SS ASME SA312, Schedule 40, Piping

The purpose of this letter is to formally notify Mackson of a discovery by Duke Energy concerning the above described piping. Material received on PO 00154619 Rel 00971, and issued under Duke Energy CAT ID 149543, was discovered to have linear indications on the ID of the piping during pre-inspection activities at Duke Energy, Catawba Nuclear Station.

The basic component was delivered for use at CNS and issued to craft for pre-fabrication activities. The material was intended to be used in the Duke Class C LD System (ASME Class 3), which is QA Condition 1, Safety Related. The piping was purchased under CATID 149543, which is [PIPE, 6", SS, ASME SA312, TP304, PLAIN ENDS, SEAMLESS OR WELDED, SCH 40, ANSI B36.10, 1001C1AF1D0B060, B, ASME SECTION III SUBSECTION NC]. The material was identified with multiple linear indications and is associated with Heat #N200309AW01 (Duke Energy UTC 30197705). The indications range from 1/4" to well over an inch. Similar indications were not identified on other material from CATID 149543, with a different Heat #, that was also issued for the same project. It should also be noted that piping from the same heat number (N200309NW01) was also supplied to McGuire Nuclear Station on Duke Energy PO 00154619 Rel 009967 & Rel 00978.

This part was procured QA Condition 1 and provided to Duke Energy under the 10 CFR 50 Appendix B quality assurance program. It is possible that 10 CFR 21 may require Mackson, as the supplier, to make a report to the NRC. Therefore, Duke Energy requests Mackson review this issue against the reporting criteria of 10 CFR 21 and take appropriate action to assure that Mackson complies with 10 CFR 21 with respect to this issue. Duke Energy requests Mackson provide documentation of its conclusions relative to 10 CFR 21 reportability for our records within 45-60 days of receipt of this letter.

Please direct any questions to Sherry Andrews, Catawba Regulatory Affairs, at (803) 701-3424.

Sincerely,

A handwritten signature in cursive script that reads "Mandy B. Hare". The signature is written in black ink and is positioned above the typed name and title.

Mandy B. Hare  
Nuclear Support Services Manager  
Catawba Nuclear Station

bxc:

M.B. Hare  
S.E. Andrews  
A. Linker  
J. Stewart  
C. Jenkins  
R. Bowman  
S. Steele  
RGC Date File



Certified Test Report

TPS001-21-08-24454-1



ACCREDITED

Materials Testing Laboratories
NonDestructive Testing

2331 Topaz Drive, Hatfield, PA 19440
TEL: 800-219-9095 • FAX: 800-219-9096

SOLD TO
Tioga Pipe Supply Co., Inc.
2450 Wheatsheaf Lane
Philadelphia, PA 19137

SHIP TO
Tioga Pipe Supply Co., Inc.
100 Mort Drive
Easton, PA 18040
ATTN: Bryan Nichols

CUSTOMER P.O.
713869

CERTIFICATION DATE
8/20/2021

SHIP VIA
LTI DELIVERY

DESCRIPTION

Quantity: 9
Material: ASME SA312 Grade TP304/TP304L
Size: 6" NPS Sch. 40
Description: Seamless Stainless Steel Pipe
Heat No.: N200309AW01
Shop Order #: 354874 / 10
O.A. No.: 12164/7
S/N: 1, 2, 3
Code Year: ASME Section III Subsection NC Class 2 2007 Edition 2008 Addenda; ASME Section II 2007 Edition 2008
Code Year: Addenda

MICROSTRUCTURE EXAMINATION

APPLICABLE SPECIFICATIONS: Customer's Instructions
ETCHANT: As Polished / 10% Oxalic, Electrolytic
MAGNIFICATION: 10X - 50X
KEY: C - Conform NC - Non-conformance R - Report for Information

Table with 4 columns: S/N, ID #, MICROSTRUCTURE, FIGURE, KEY (C/NC/R). Rows 1-1 to 1-4.

Date Completed: 8/20/2021
Procedures/Methods: 90-MICRO-1, Rev. 8, Microexamination of Metals

MICROSTRUCTURE EXAMINATION

APPLICABLE SPECIFICATIONS: Customer's Instructions
ETCHANT: As Polished / 10% Oxalic, Electrolytic
MAGNIFICATION: 100X
KEY: C - Conform NC - Non-conformance R - Report for Information

Table with 4 columns: S/N, ID #, MICROSTRUCTURE, FIGURE, KEY (C/NC/R). Row 2-1.

Date Completed: 8/20/2021
Procedures/Methods: 90-MICRO-1, Rev. 8, Microexamination of Metals





Certified Test Report

TPS001-21-08-24454-1



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Materials Testing Laboratories
NonDestructive Testing

2331 Topaz Drive, Hatfield, PA 19440
TEL: 800-219-9095 • FAX: 800-219-9096

HEAT NO. N200309AW01 / SHOP ORDER NO. 354874 / 10

MICROSTRUCTURE EXAMINATION

APPLICABLE SPECIFICATIONS: Customer's Instructions

ETCHANT: As Polished / 10% Oxalic, Electrolytic

MAGNIFICATION: 10X - 100X

KEY: C - Conform NC - Non-conformance R - Report for Information

Table with 4 columns: S/N, ID #, MICROSTRUCTURE, FIGURE, KEY (C/NC/R). Contains two rows of inspection data.

Date Completed: 8/20/2021

Procedures/Methods: 90-MICRO-1, Rev. 8, Microexamination of Metals

No weld repairs were performed on the referenced items.

The provisions of 10CFR21, 10CFR50, Appendix B and ASME Section III, NCA-3800 apply to this order.

The services performed above were done in accordance with LTI's Quality System Program Manual Revision 21 dated 5/1/2019 and ISO/IEC 17025:2017. These results relate only to the items tested and this report shall not be reproduced, except in full, without the written approval of Laboratory Testing, Inc. The services provided on this certificate have been performed in conformance with the customer's purchase order requirements. L.T.I. is accredited by Nadcap for NDT and Materials Testing for the test methods and specific services as listed in the Scopes of Accreditation available at www.labtesting.com and www.eAuditNet.com. The results reported on this test report represent the actual attributes of the material tested and indicate full compliance with all applicable specification and contract requirements. This is a shared risk decision rule which the customer also has responsibility for determining acceptance of the results.

MERCURY CONTAMINATION: During the testing and inspection, the product did not come in direct contact with mercury or any of its compounds nor with any mercury containing devices employing a single boundary of containment.

NOTE: The recording of false, fictitious or fraudulent statements or entries on this document may be punishable as a felony under Federal Statutes.

Sherri L. Scheifele
QA Specialist

Sherri L. Scheifele (handwritten signature)

Authorized Signature

PHOTOGRAPHIC SUBMITTAL

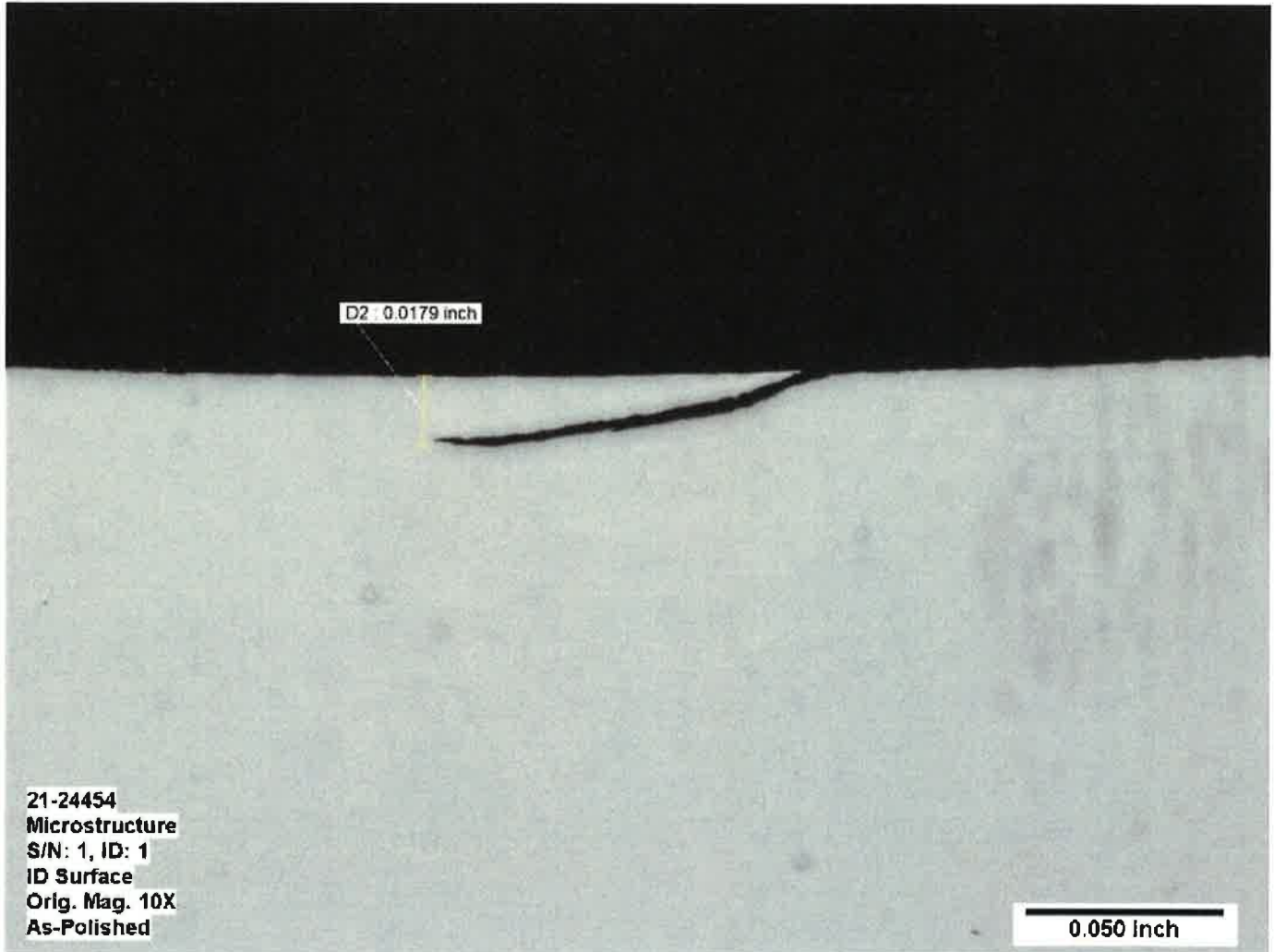


FIGURE 1

PHOTOGRAPHIC SUBMITTAL

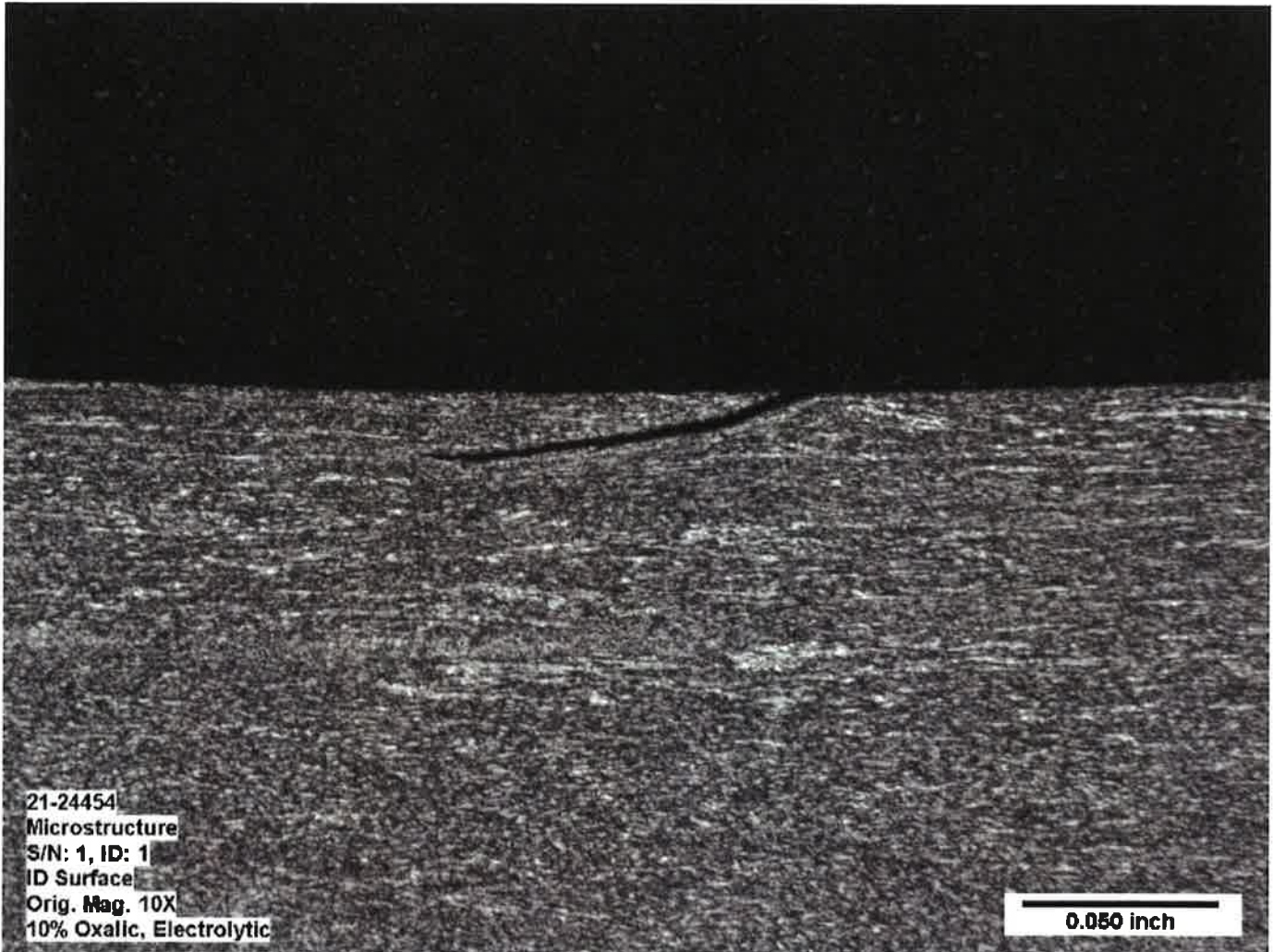


FIGURE 2

PHOTOGRAPHIC SUBMITTAL

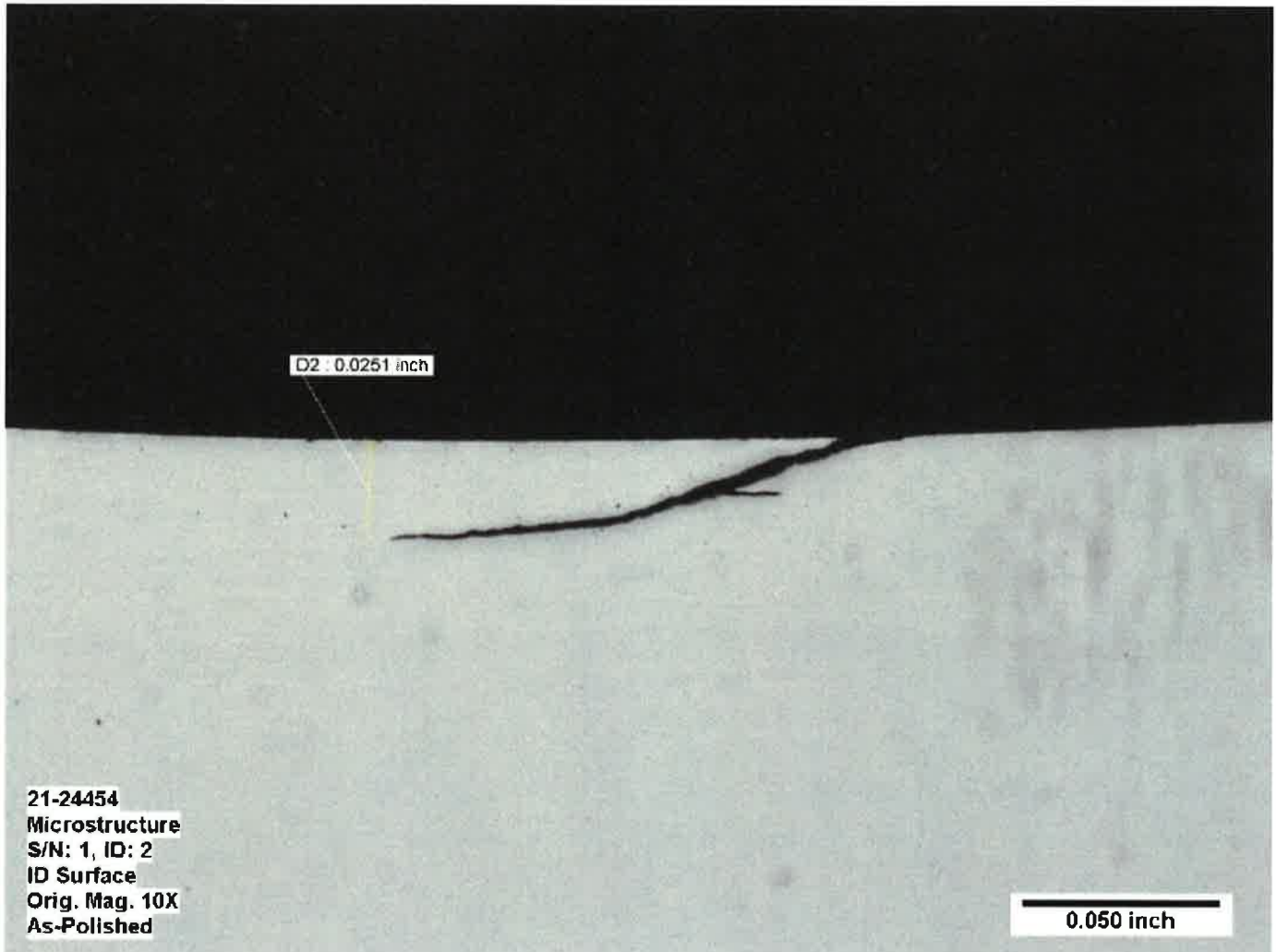


FIGURE 3

PHOTOGRAPHIC SUBMITTAL

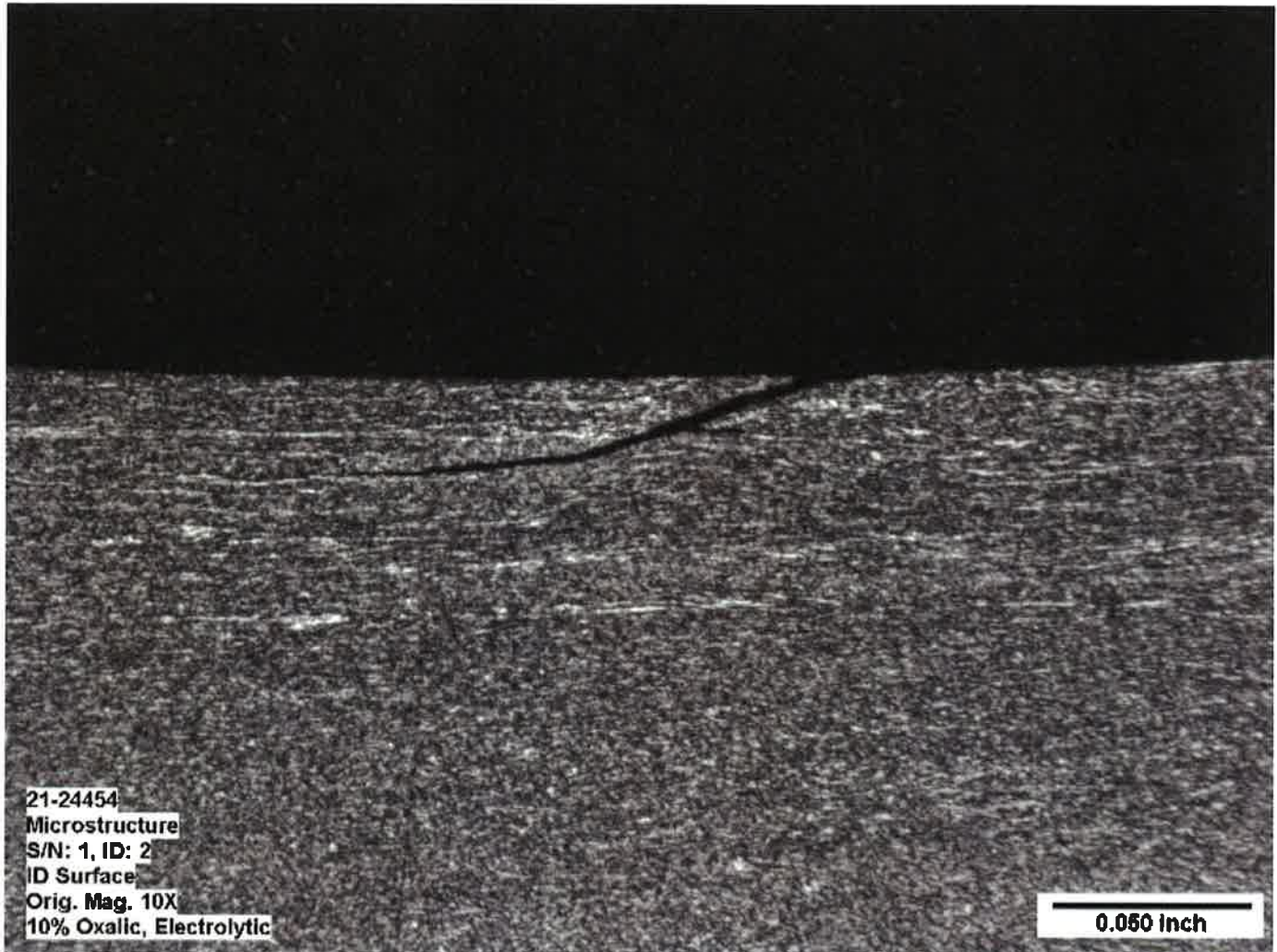


FIGURE 4

PHOTOGRAPHIC SUBMITTAL

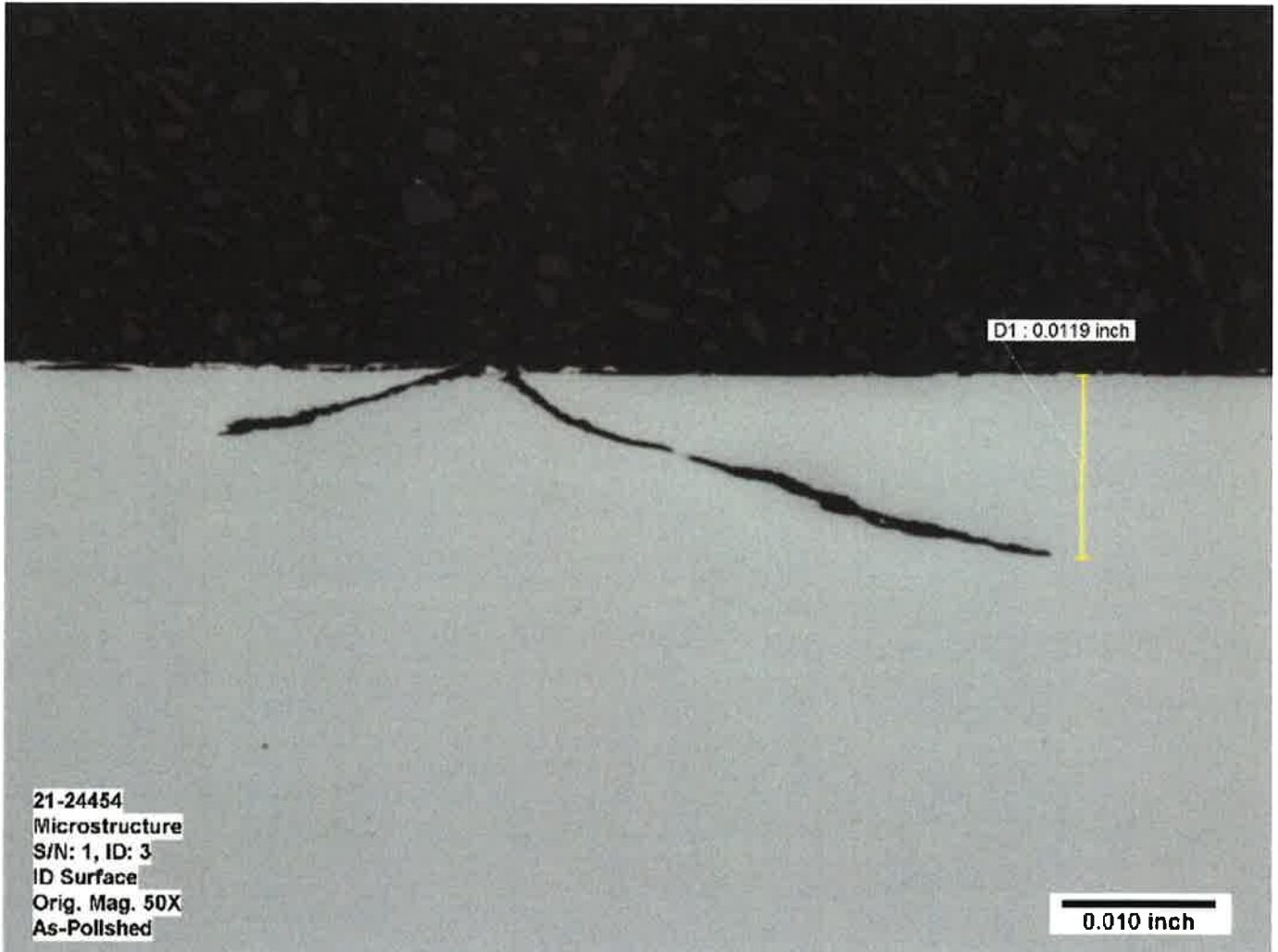


FIGURE 5

PHOTOGRAPHIC SUBMITTAL

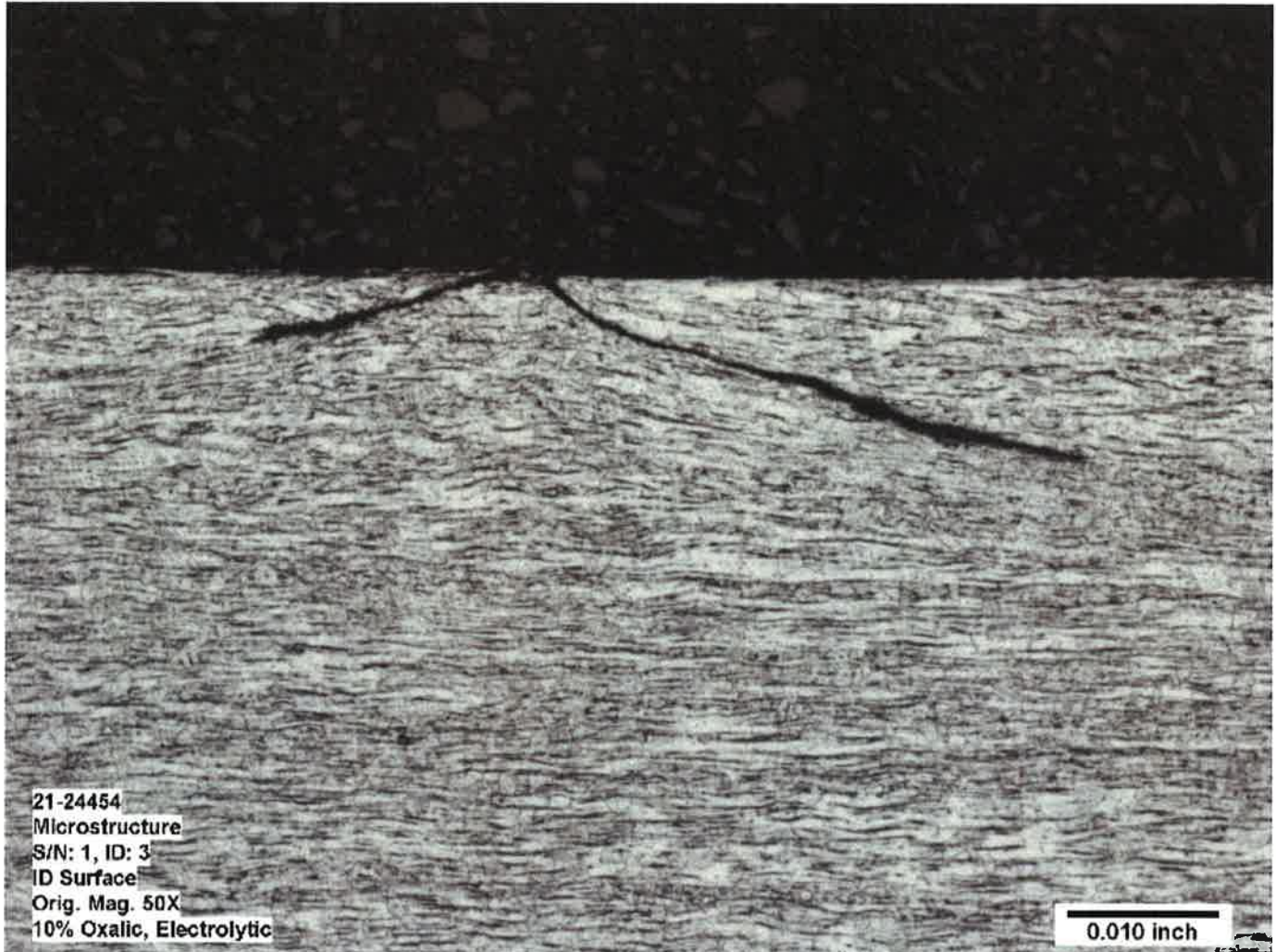


FIGURE 6

PHOTOGRAPHIC SUBMITTAL

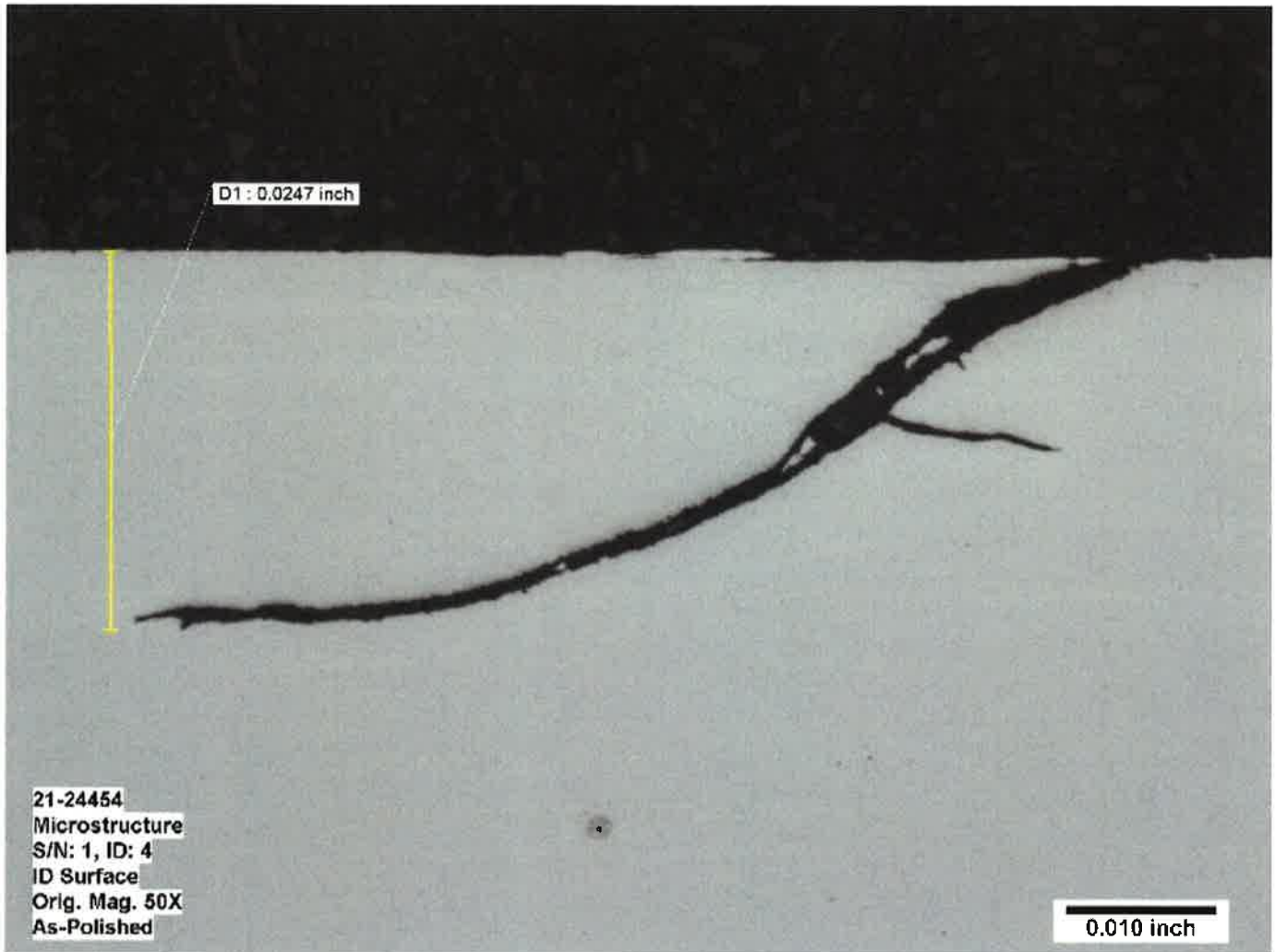


FIGURE 7



PHOTOGRAPHIC SUBMITTAL

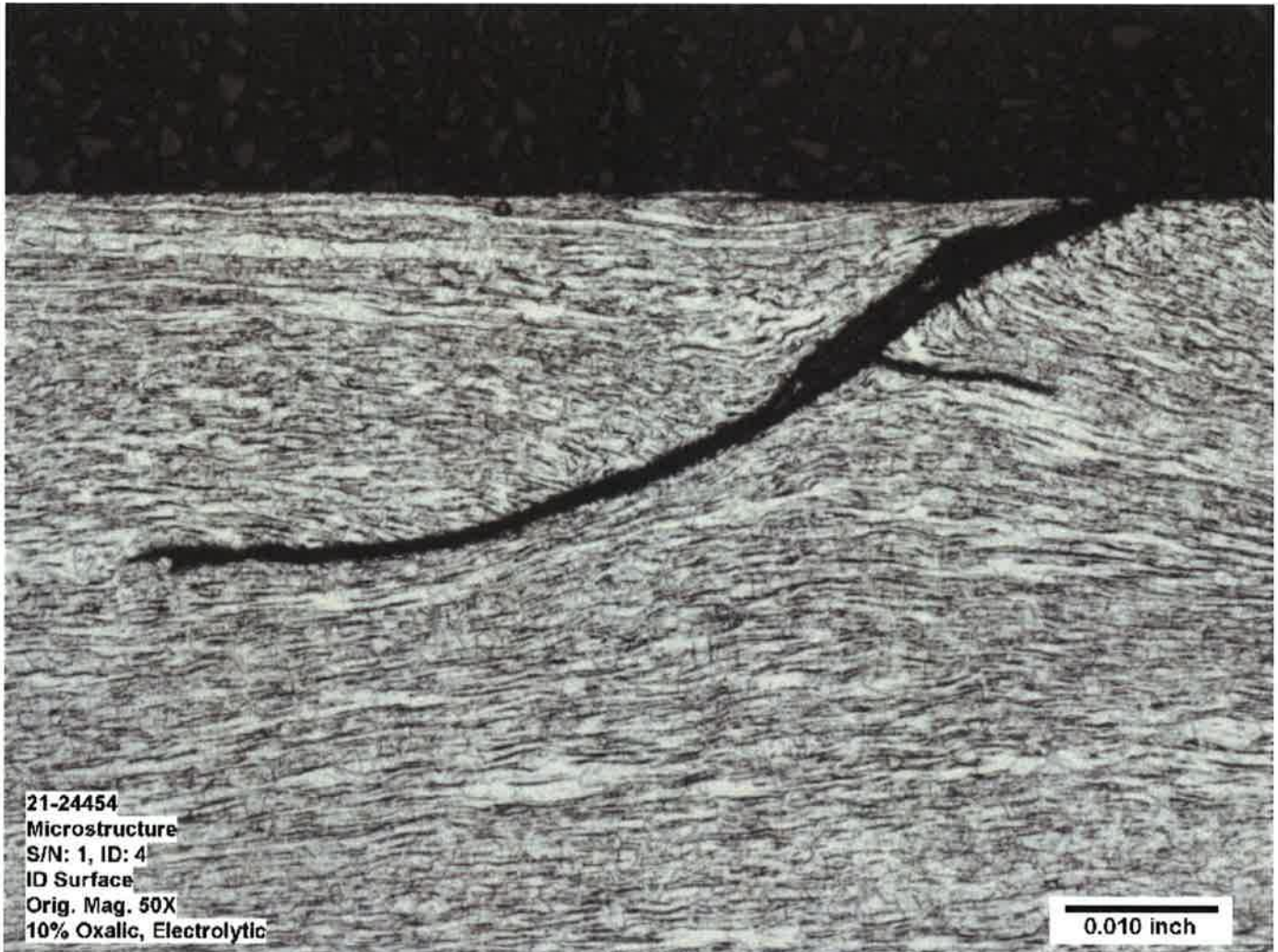


FIGURE 8

PHOTOGRAPHIC SUBMITTAL

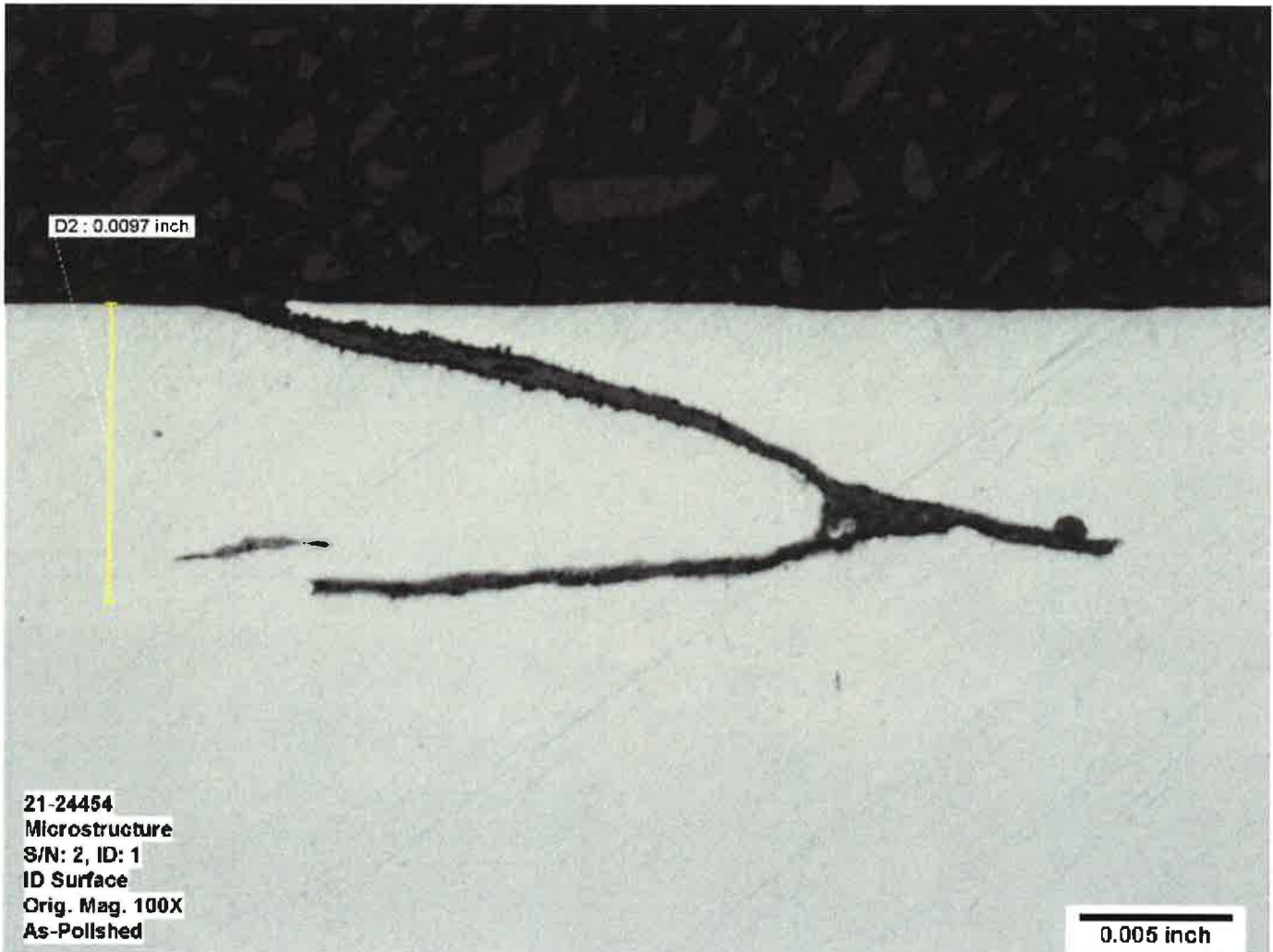


FIGURE 9

PHOTOGRAPHIC SUBMITTAL

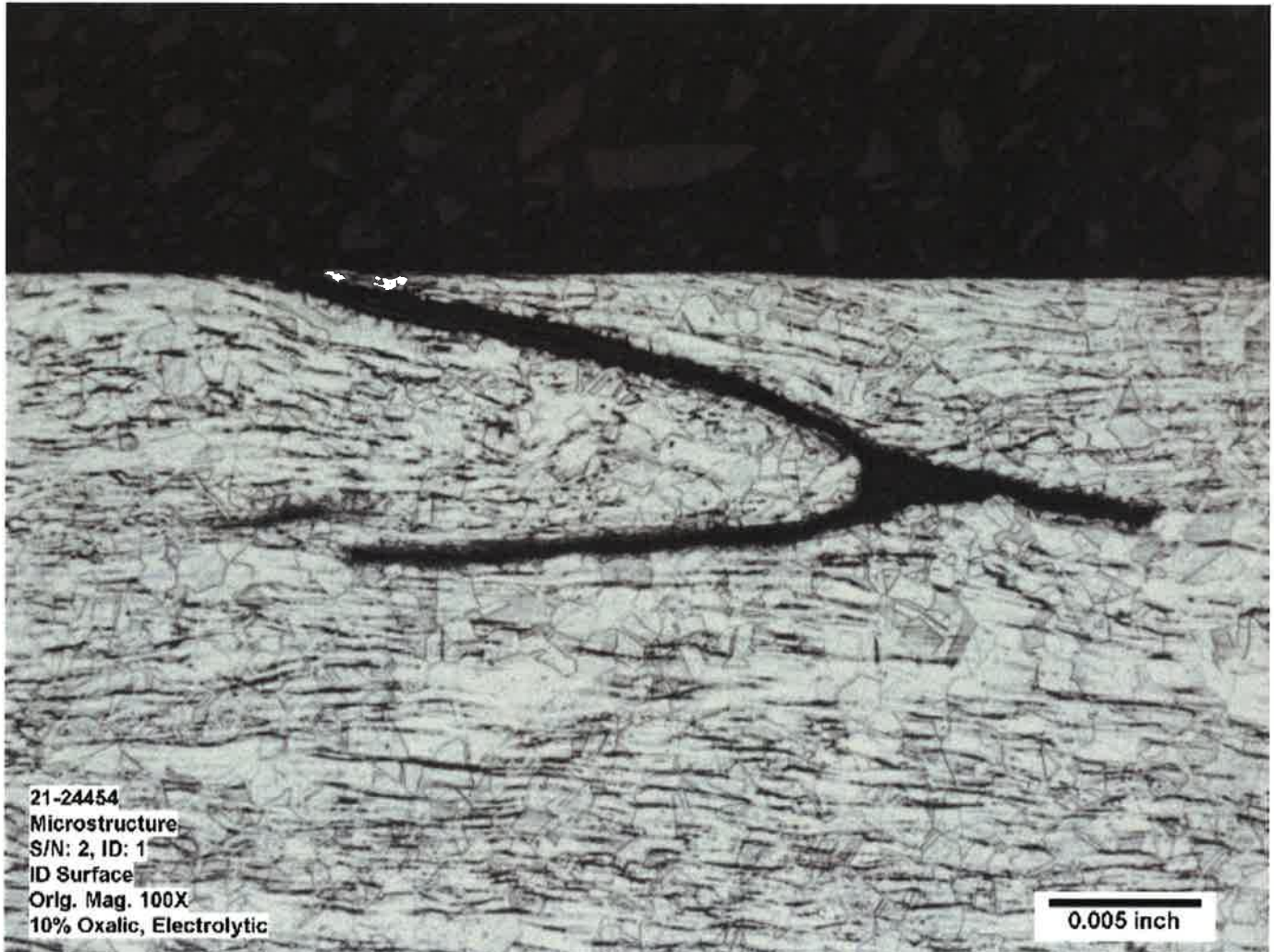


FIGURE 10



**LABORATORY  
TESTING INC.**

2331 Topaz Drive, Hatfield, PA 19440  
TEL: 800-219-9095 • FAX: 800-219-9096

*Certified Test Report*

TPS001-21-08-24454-1



Administered by PRT  
**ACCREDITED**

Materials Testing Laboratories  
NonDestructive Testing

PHOTOGRAPHIC SUBMITTAL

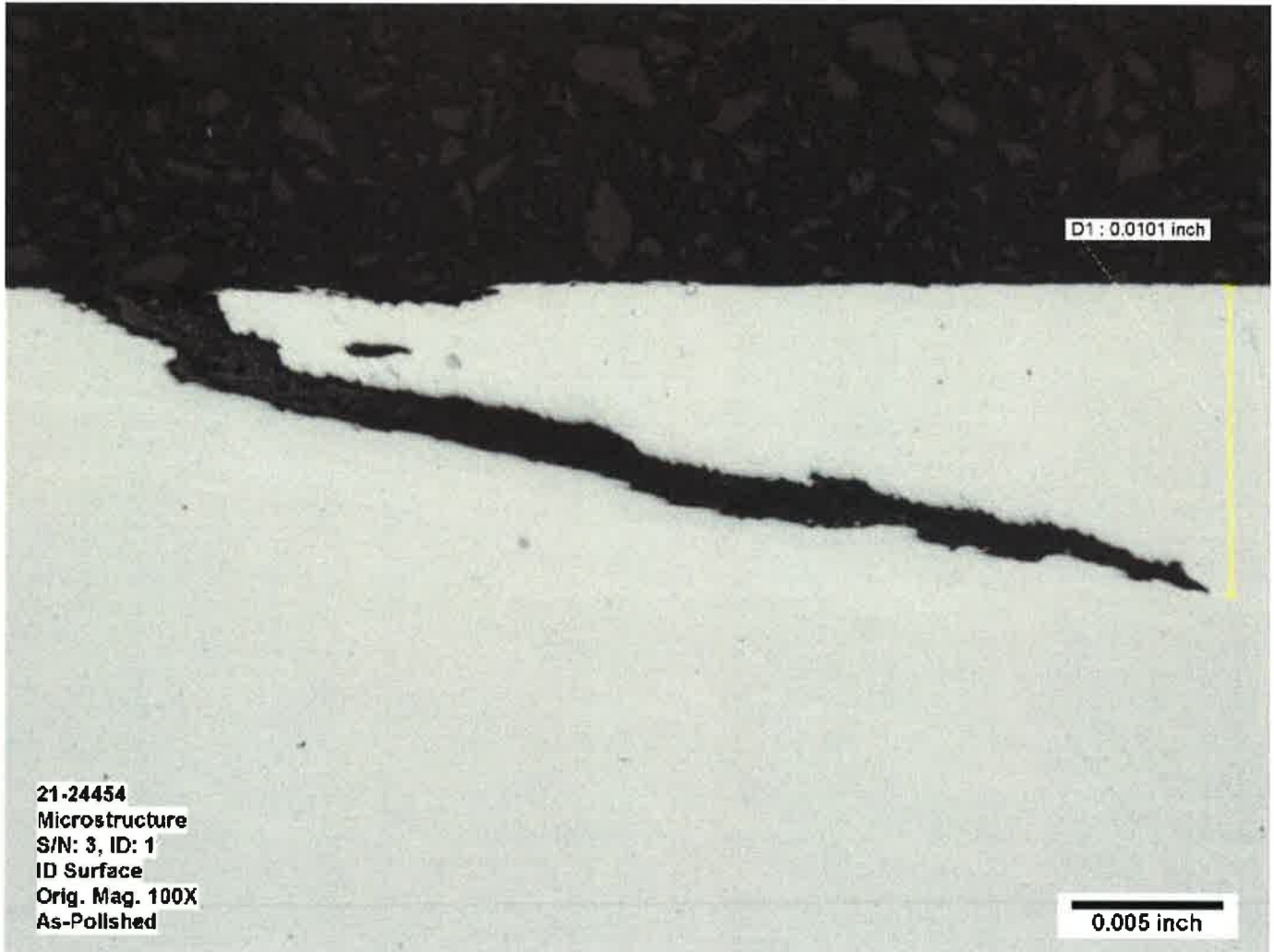


FIGURE 11

PHOTOGRAPHIC SUBMITTAL

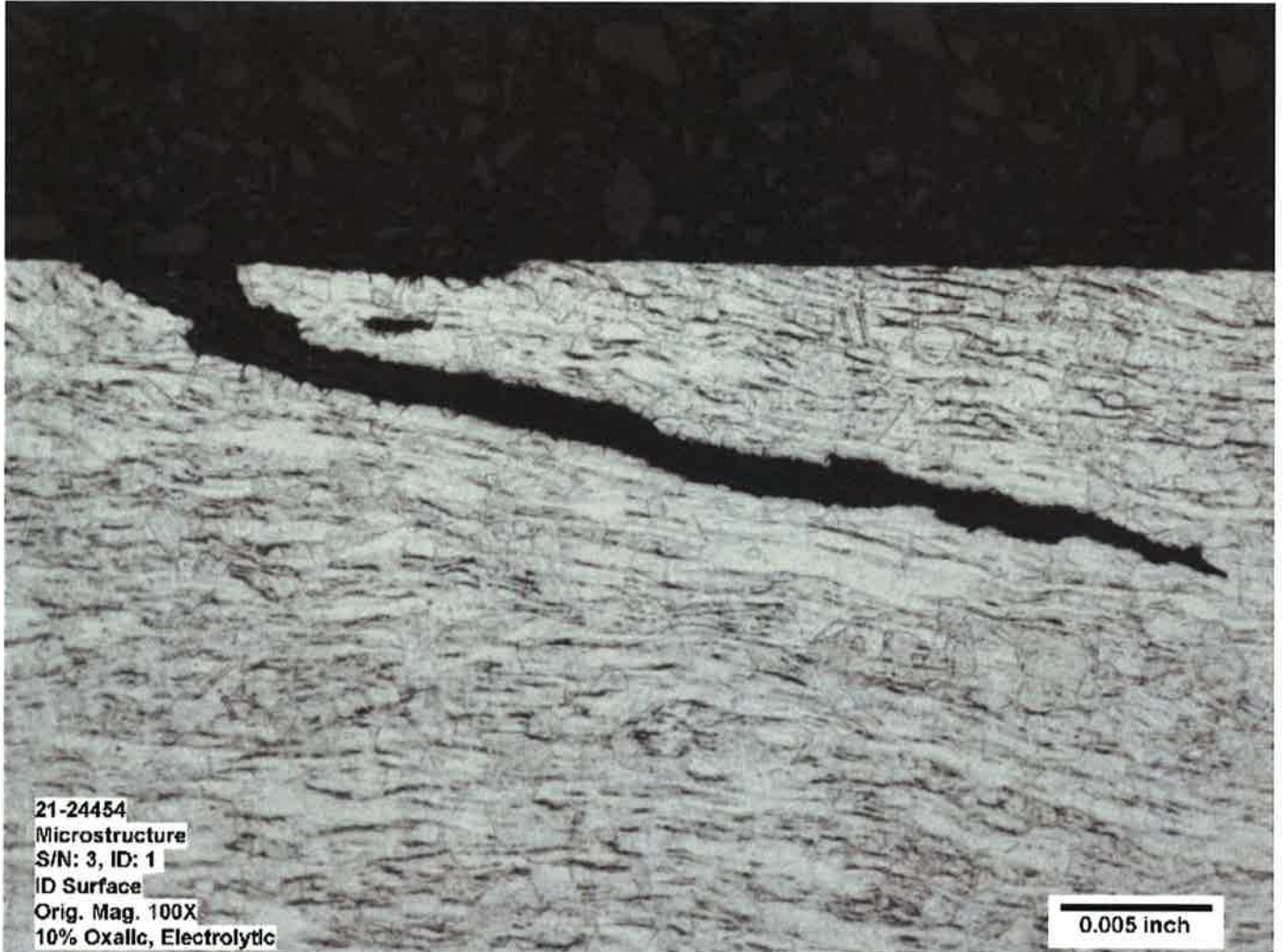


FIGURE 12

PHOTOGRAPHIC SUBMITTAL

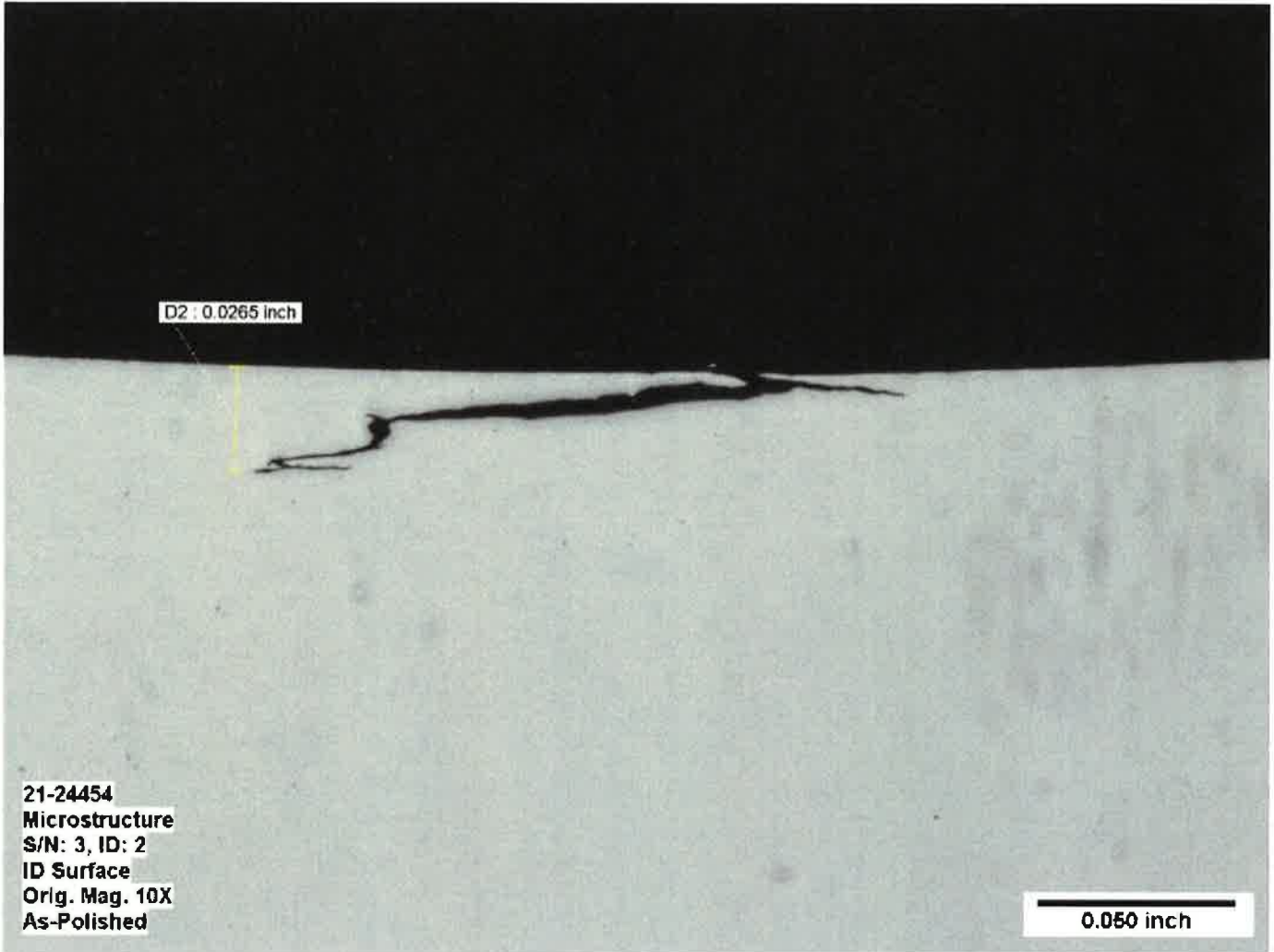


FIGURE 13

PHOTOGRAPHIC SUBMITTAL

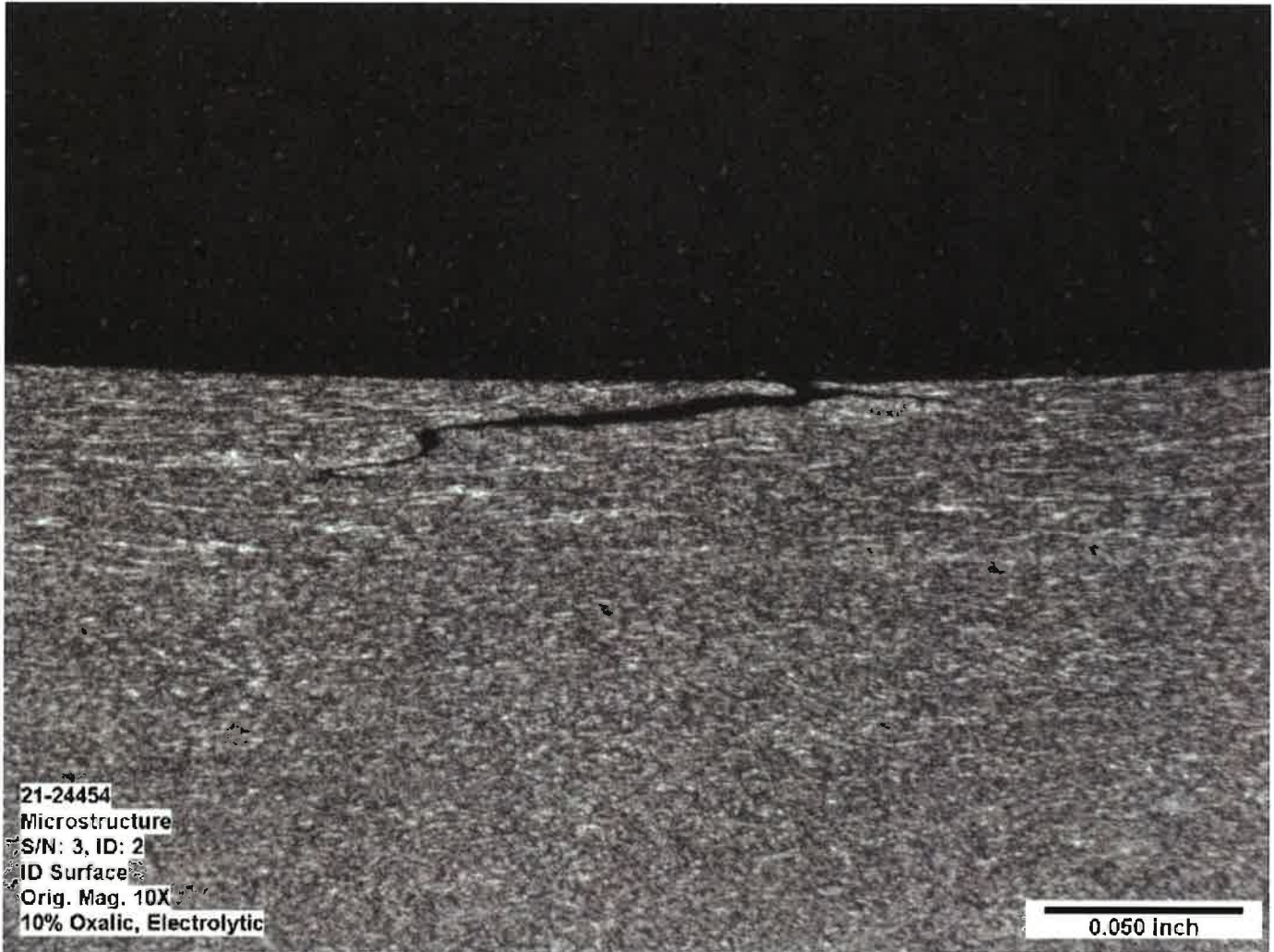


FIGURE 14