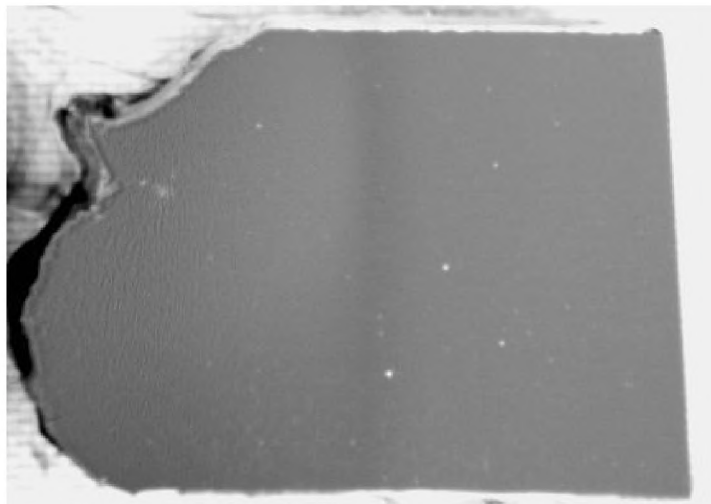
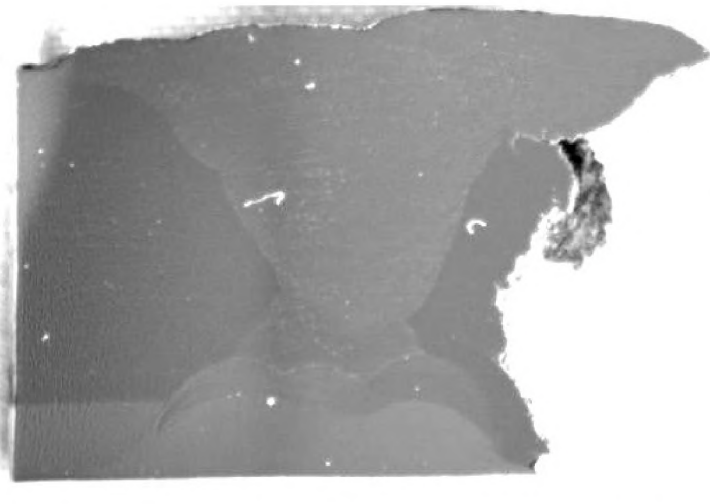
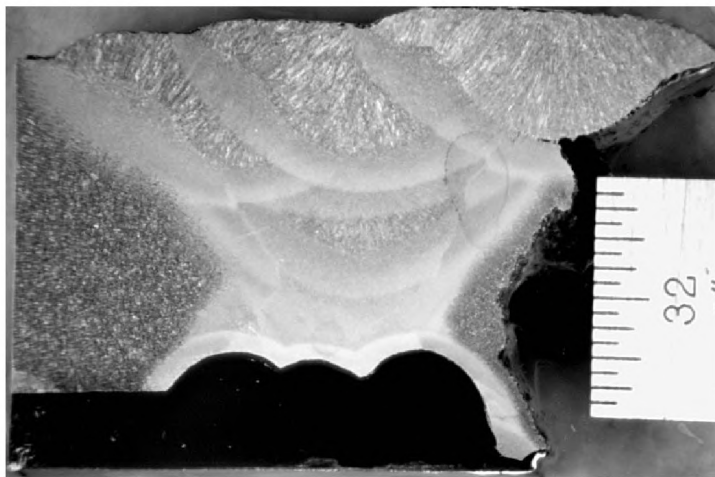


BETA LAB NO. M10198- CS4-01/ LS3 BOTTOM	TESORO REFINING AND MARKETING COMPANY ANACORTES REFINERY 10200 W. MARCH POINT ROAD T91WA4428 ANACORTES, WA 98221	CUSTOMER P.O. NO.: 4501667904
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LABORATORY REPORT-CS4-01/ LS3 Bottom



Mounts of matching samples 19E-18-M3 (Can 4, left), and 18-M3 (Can 3, right), un-etched



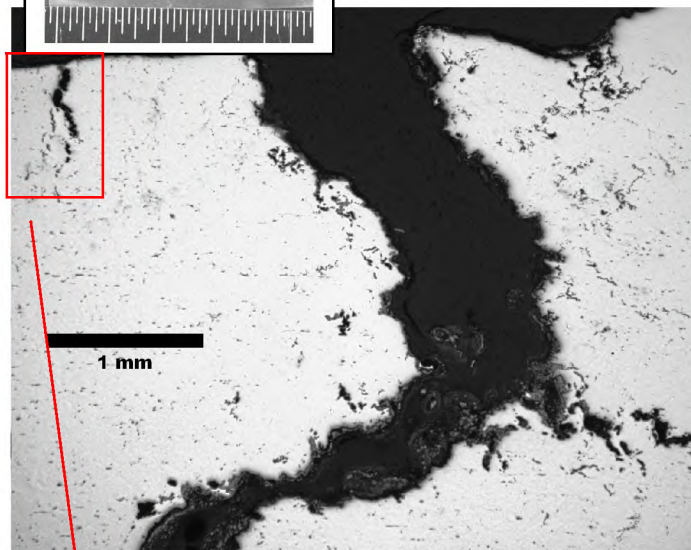
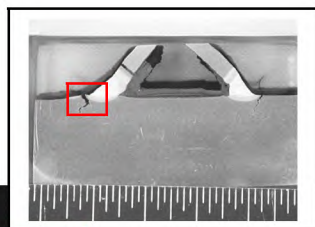
Mounts of matching samples 19E-18-M3 (Can 4, left), and 18-M3 (Can 3, right), etched

FIGURE 6- OD on top

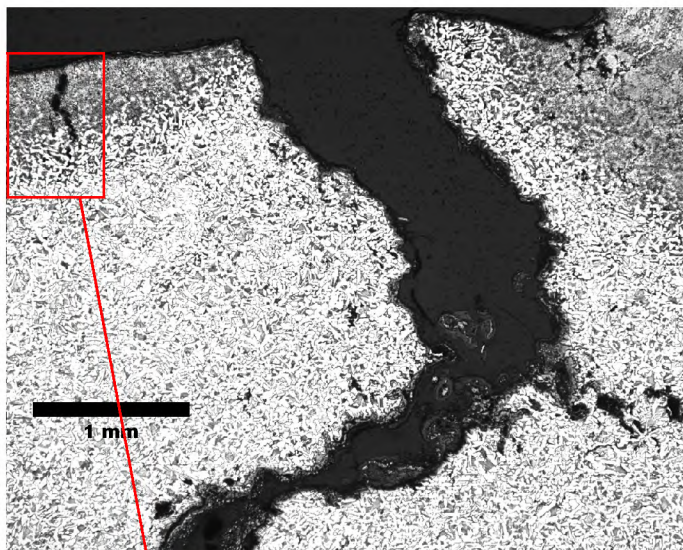
BETA LAB NO.M10198- CS4-01/ LS3 BOTTOM	TESORO REFINING AND MARKETING COMPANY ANACORTES REFINERY 10200 W. MARCH POINT ROAD T91WA4428 ANACORTES, WA 98221	CUSTOMER P.O. NO.: 4501667904
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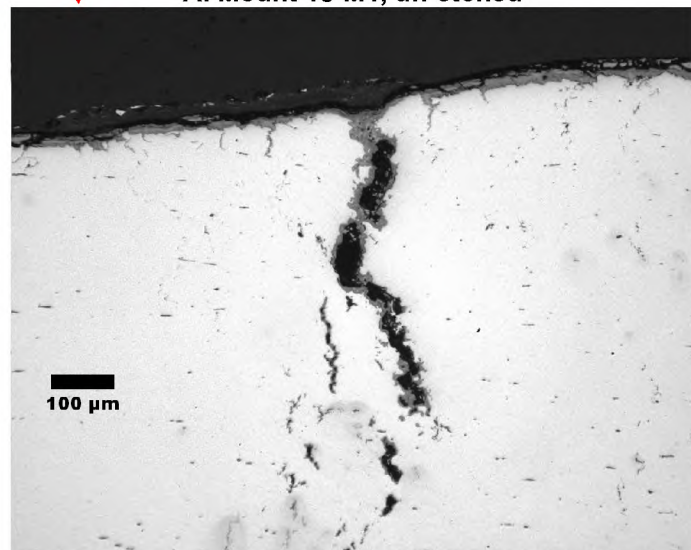
SAMPLE 18-M1



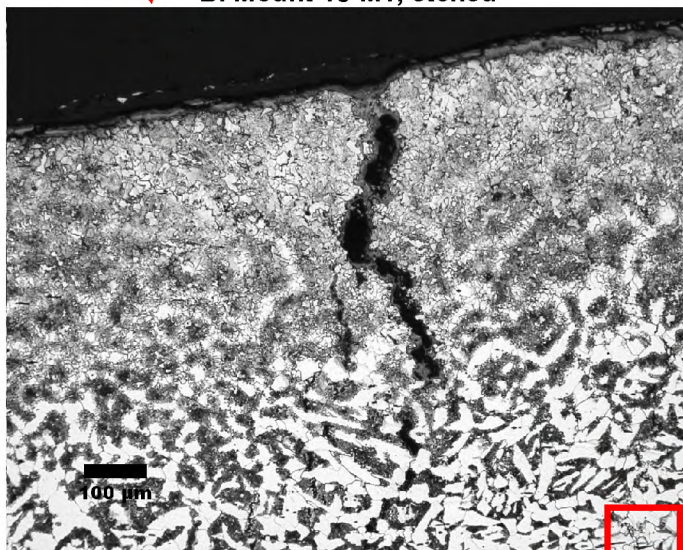
A. Mount 18-M1, un-etched



B. Mount 18-M1, etched



C. Indicated area at higher magnification. Un-etched



D. Indicated area at higher magnification. Etched.

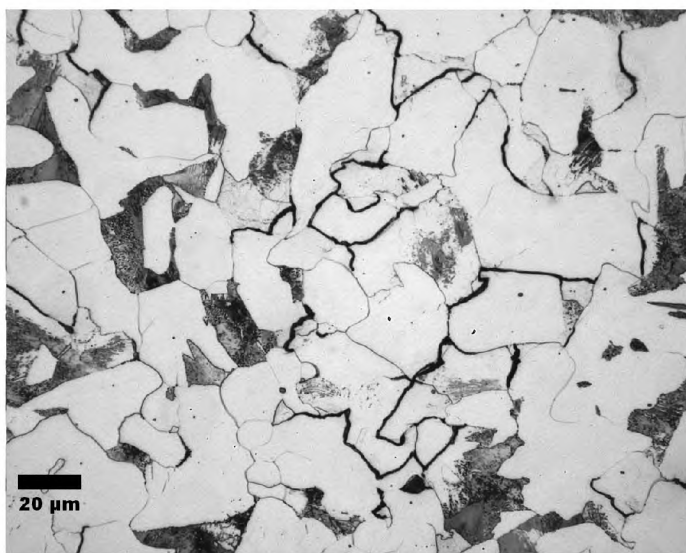
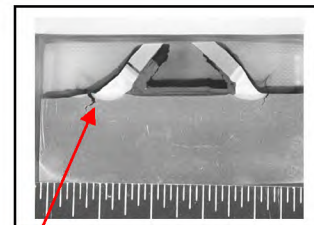
Figure 7- ID on top

See Fig. 8

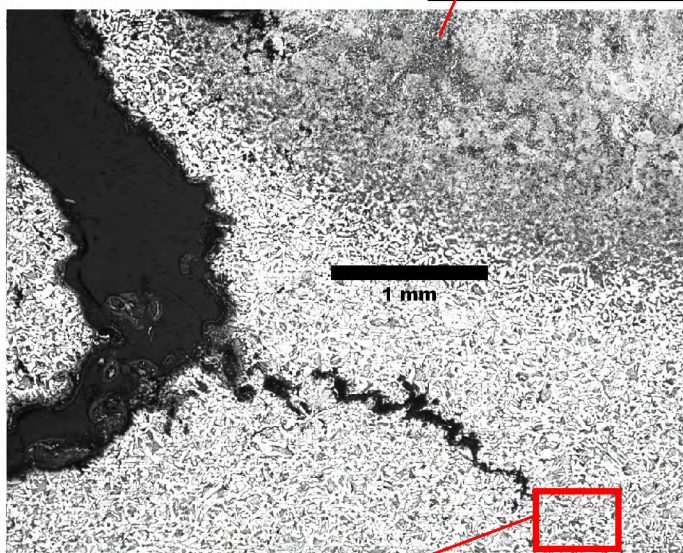
BETA LAB NO.M10198- CS4-01/ LS3 BOTTOM	TESORO REFINING AND MARKETING COMPANY ANACORTES REFINERY 10200 W. MARCH POINT ROAD T91WA4428 ANACORTES, WA 98221	CUSTOMER P.O. NO.: 4501667904
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LABORATORY REPORT-CS4-01/ LS3 Bottom

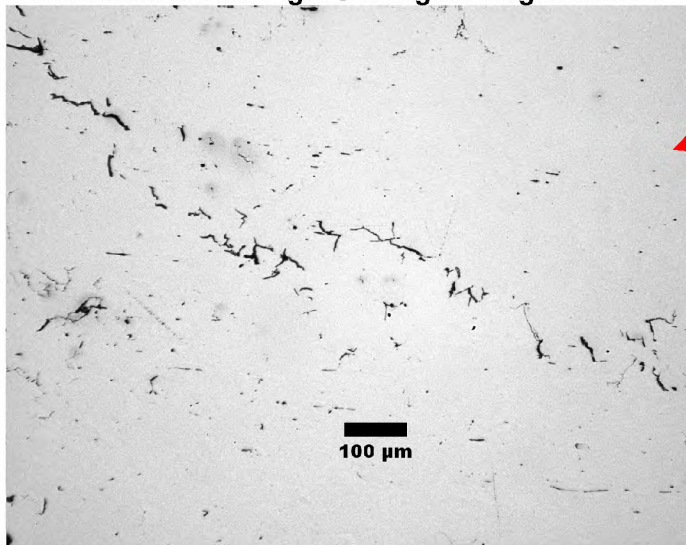
SAMPLE 18-M1



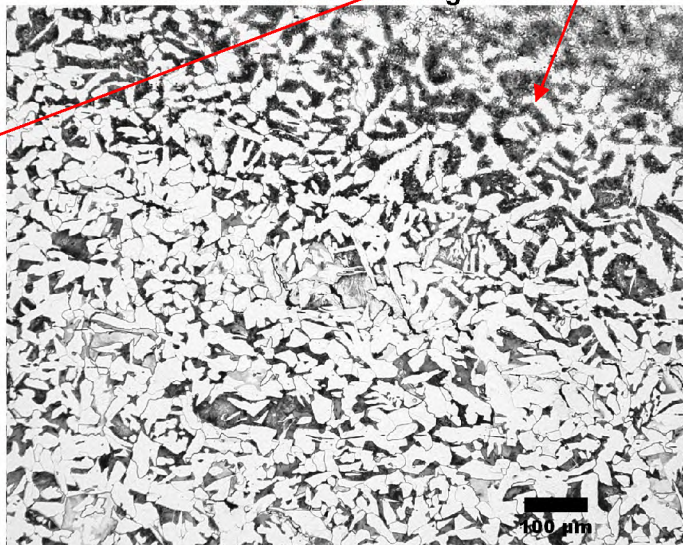
A. Marked area in Fig. 7C at higher magnification.



B. Area near the crack in Fig. 7B above



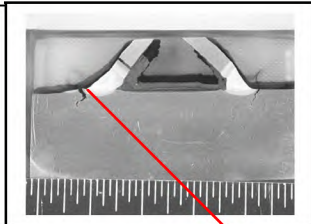
C. Enlarged area in the box. Un-etched



D. Enlarged area in the box. Etched

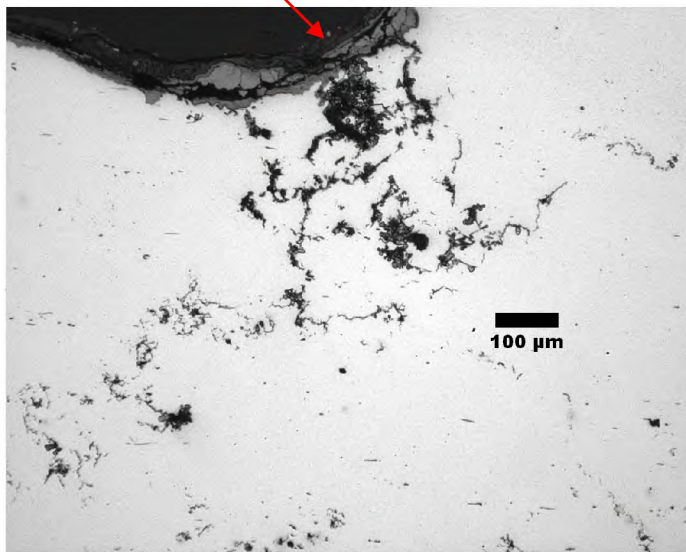
Figure 8

BETA LAB NO. M10198- CS4-01/ LS3 BOTTOM	TESORO REFINING AND MARKETING COMPANY ANACORTES REFINERY 10200 W. MARCH POINT ROAD T91WA4428 ANACORTES, WA 98221	CUSTOMER P.O. NO.: 4501667904
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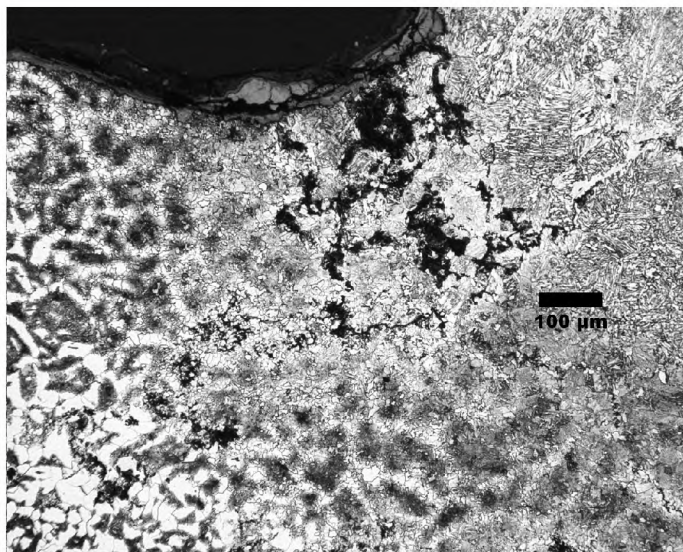


LABORATORY REPORT-CS4-01/ LS3 Bottom

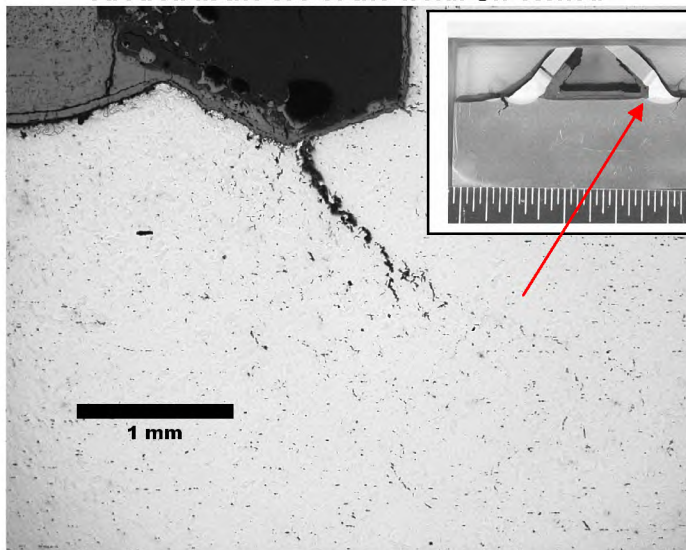
SAMPLE 18-M1



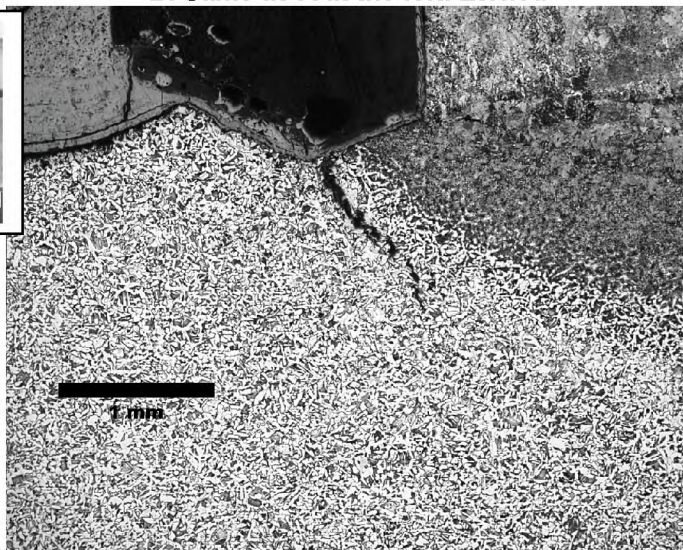
A. Area at the toe of the weld. Un-etched



B. Same as A at the left. Etched



C. Weld root inside the angle. Un-etched



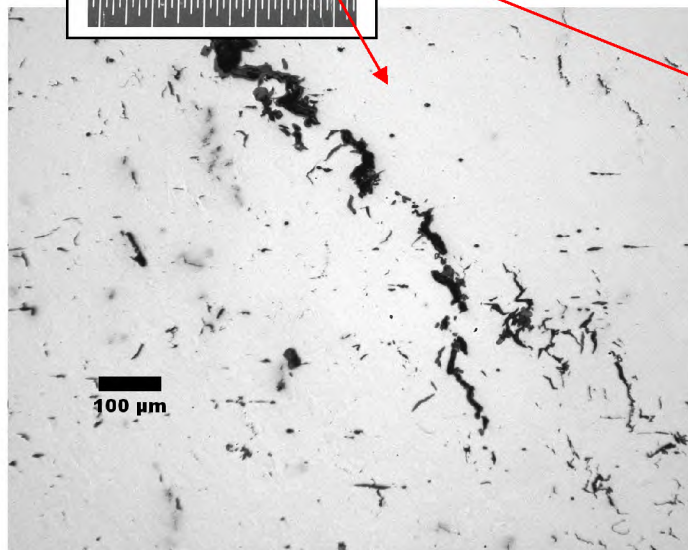
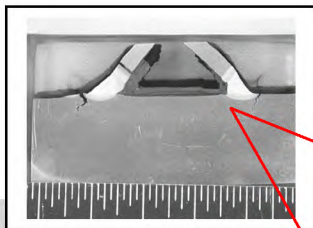
D. Same as C at left. Etched

Figure 9- ID on top

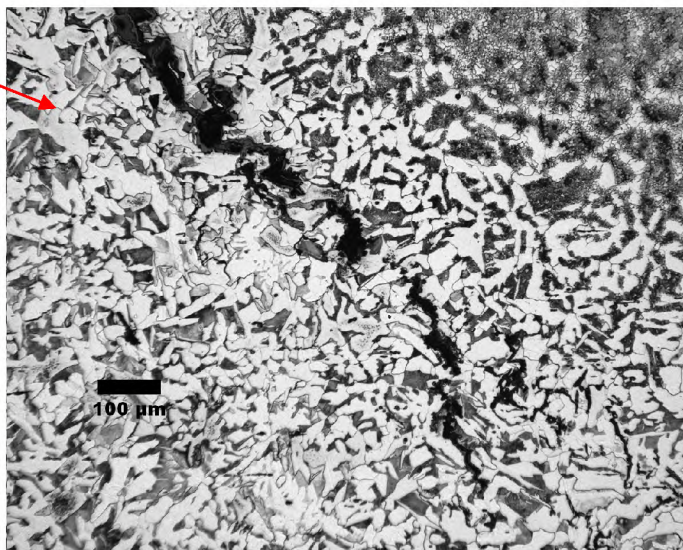
BETA LAB NO.M10198- CS4-01/ LS3 BOTTOM	TESORO REFINING AND MARKETING COMPANY ANACORTES REFINERY 10200 W. MARCH POINT ROAD T91WA4428 ANACORTES, WA 98221	CUSTOMER P.O. NO.: 4501667904
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LABORATORY REPORT-CS4-01/ LS3 Bottom

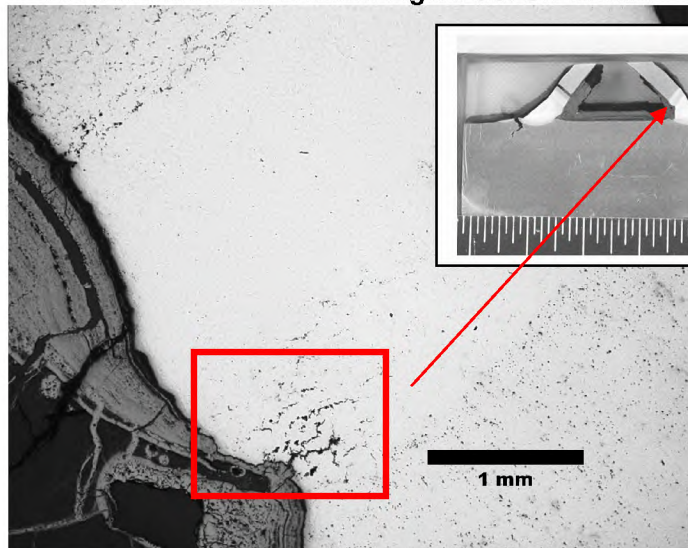
SAMPLE 18-M1



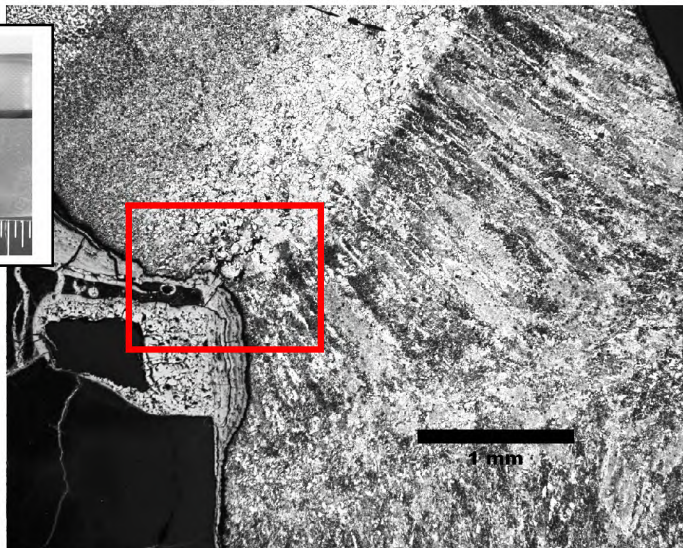
A. Area below the crack in Figure 9C. Un-etched



B. Same as A at left. Etched



C. Root of the weld, angle side. Un-etched.

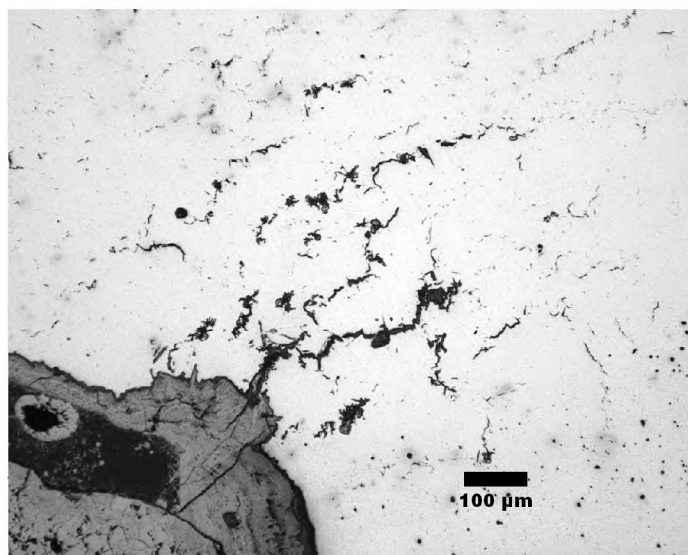


D. Same as C at left. See Fig. 11A for the details of marked area Etched.

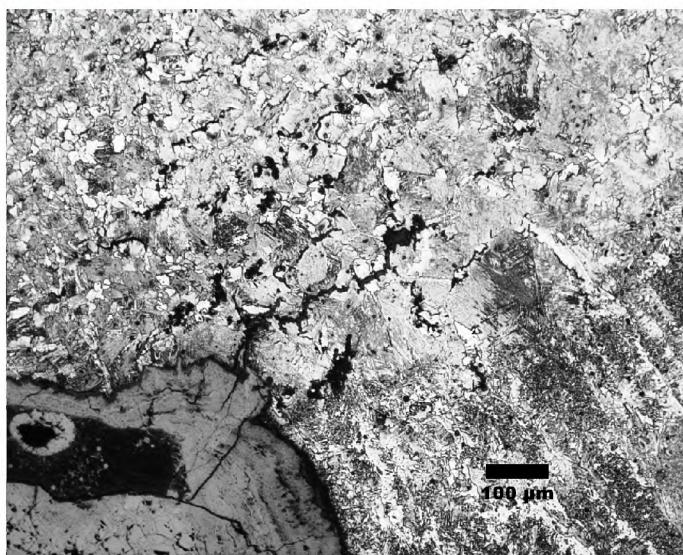
Figure 10

BETA LAB No.M10198- CS4-01/ LS3 BOTTOM	TESORO REFINING AND MARKETING COMPANY ANACORTES REFINERY 10200 W. MARCH POINT ROAD T91WA4428 ANACORTES, WA 98221	CUSTOMER P.O. NO.: 4501667904
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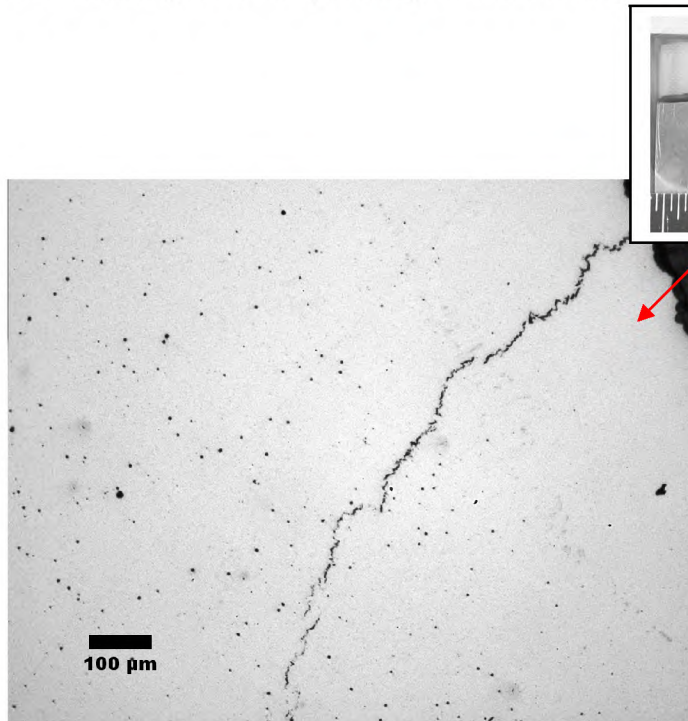
LABORATORY REPORT-CS4-01/ LS3 Bottom
SAMPLE 18-M1



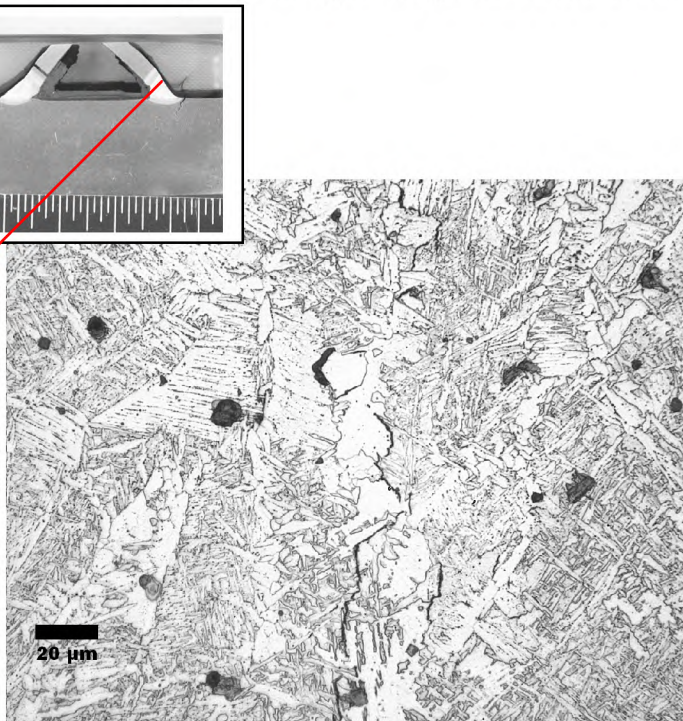
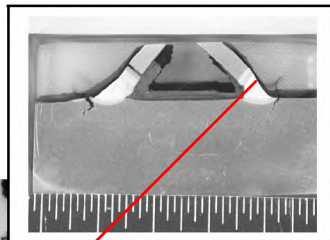
A. Area in Fig. 10C at higher magnification. Un-etched



B. Area in Fig. 10D at higher magnification. Etched



C. Crack in the cap of the weld. Un-etched



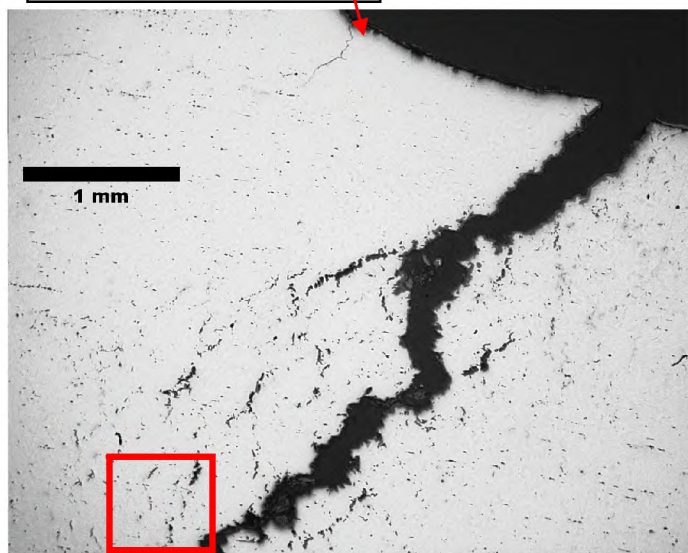
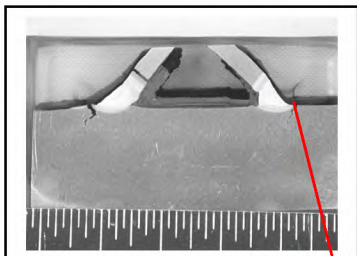
D. Area near the tip of the crack in C at left. Etched

Figure 11.

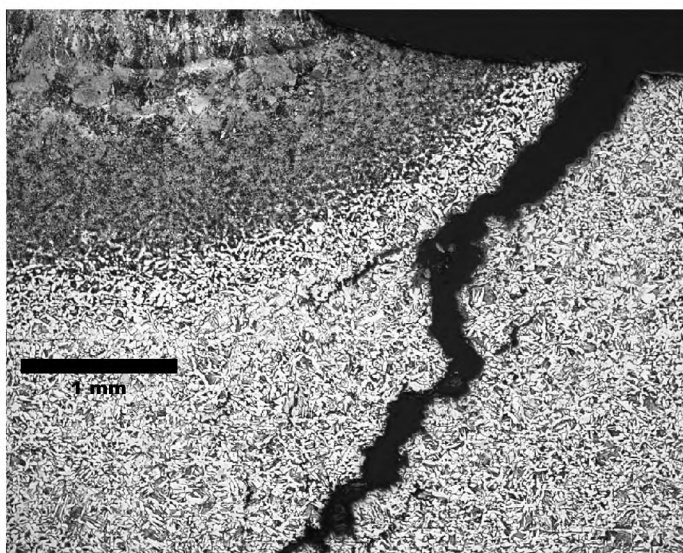
BETA LAB NO.M10198- CS4-01/ LS3 BOTTOM	TESORO REFINING AND MARKETING COMPANY ANACORTES REFINERY 10200 W. MARCH POINT ROAD T91WA4428 ANACORTES, WA 98221	CUSTOMER P.O. NO.: 4501667904
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LABORATORY REPORT-CS4-01/ LS3 Bottom

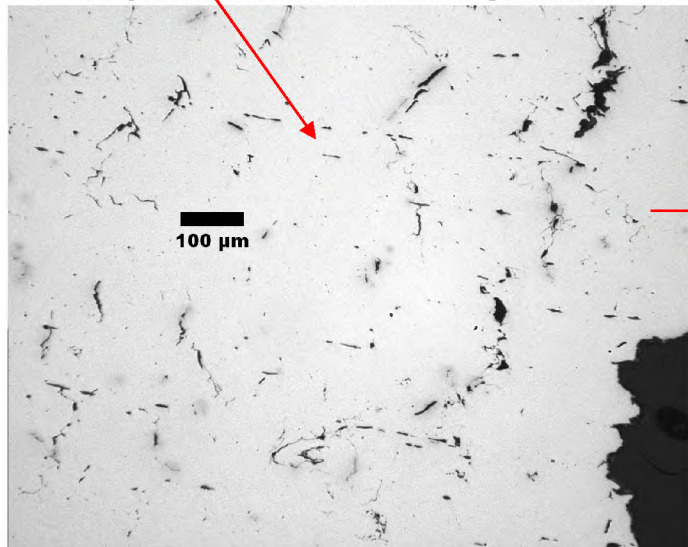
SAMPLE 18-M1



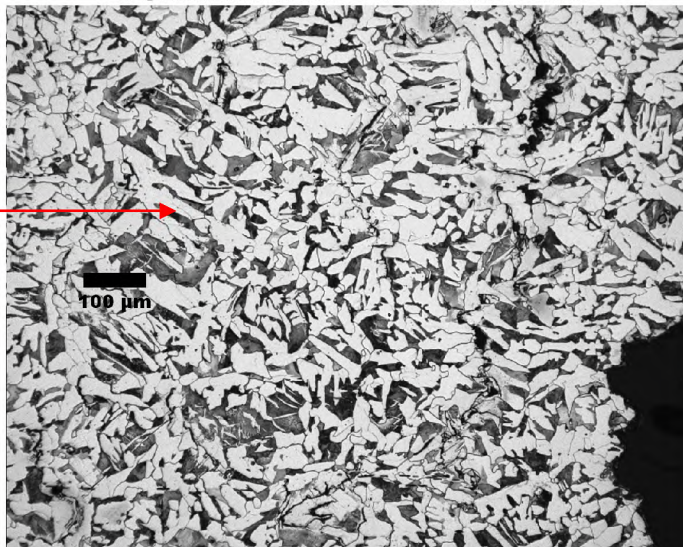
A. Crack at the toe of the weld. Un-etched



B. Crack at the toe of the weld. Etched



C. Area near the crack in the base metal. Un-etched



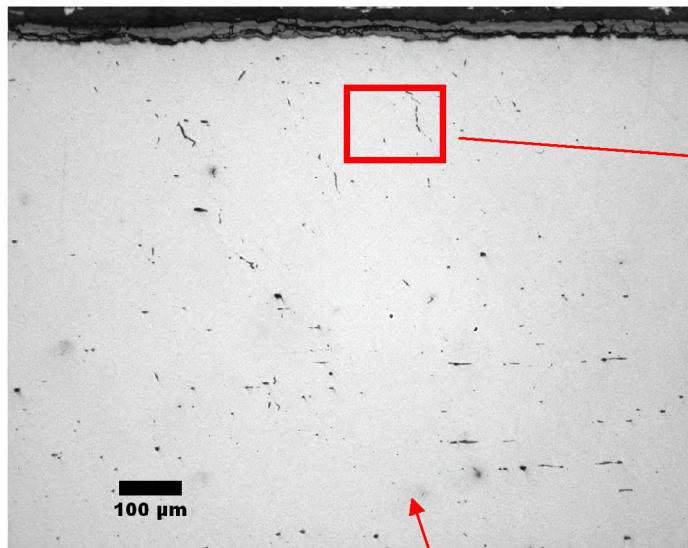
B. Same as in C at left. Etched

Figure 12.- ID on top

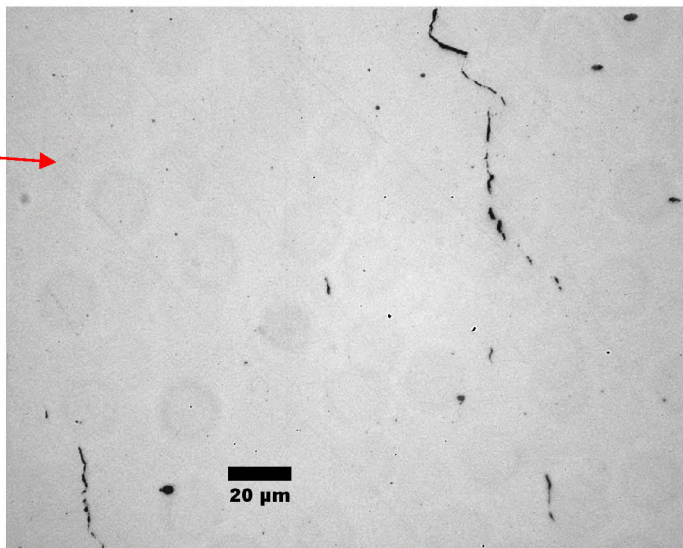
BETA LAB NO.M10198- CS4-01/ LS3 BOTTOM	TESORO REFINING AND MARKETING COMPANY ANACORTES REFINERY 10200 W. MARCH POINT ROAD T91WA4428 ANACORTES, WA 98221	CUSTOMER P.O. NO.: 4501667904
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LABORATORY REPORT-CS4-01/ LS3 Bottom

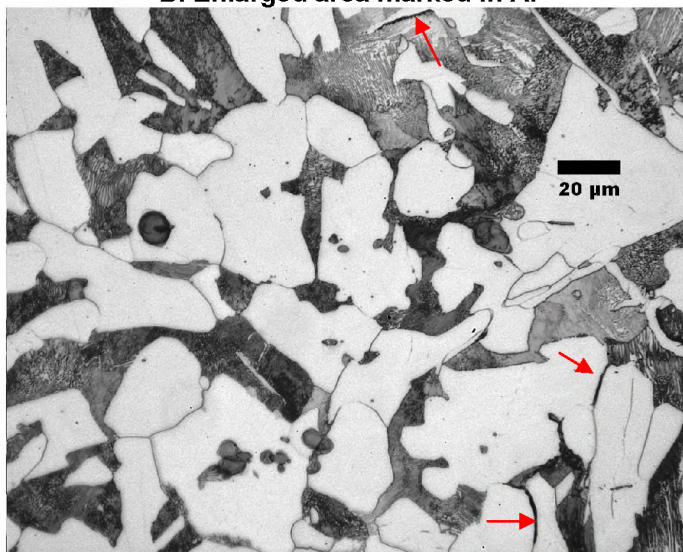
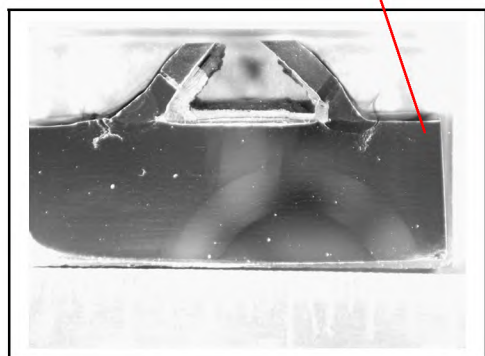
SAMPLE 18-M1



A. Base metal away from the weld and HAZ.



B. Enlarged area marked in A.



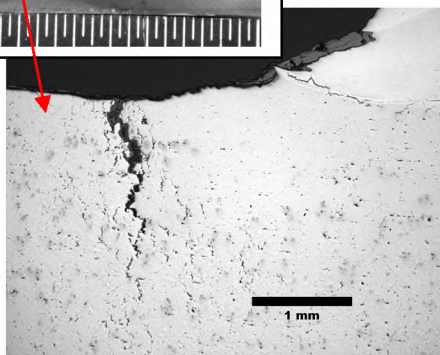
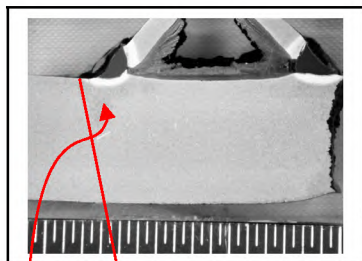
C. Base metal near the area in B above.

Figure 13- ID on top

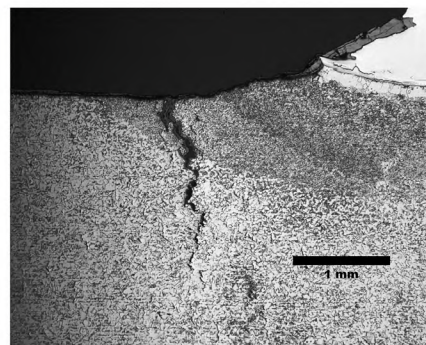
BETA LAB NO.M10198- CS4-01/ LS3 BOTTOM	TESORO REFINING AND MARKETING COMPANY ANACORTES REFINERY 10200 W. MARCH POINT ROAD T91WA4428 ANACORTES, WA 98221	CUSTOMER P.O. NO.: 4501667904
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LABORATORY REPORT-CS4-01/ LS3 Bottom

SAMPLE 18-M2



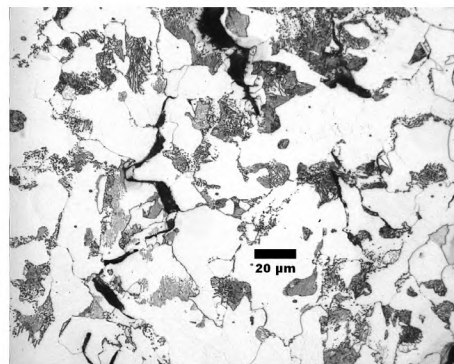
A. Left weld toe. Un-etched



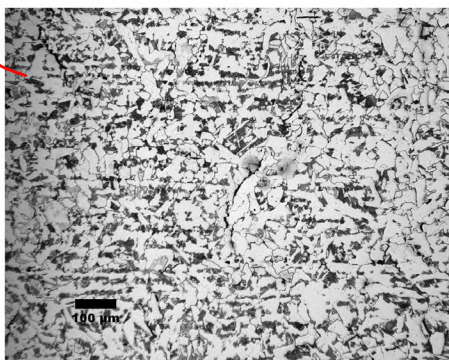
B. Left weld toe. Etched



C. Area near the tip of the crack in B



D. Area near the tip of the crack in B at higher magnification



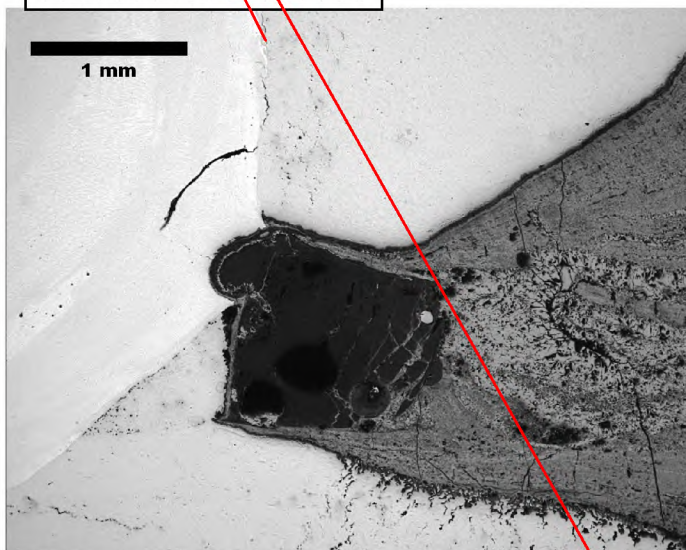
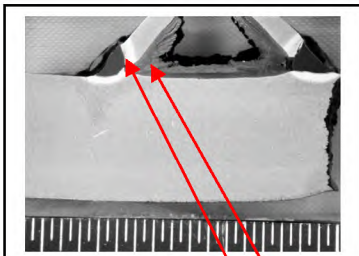
E. Area of the base metal three fields down under the weld toe. Etched

Figure 14- ID on top

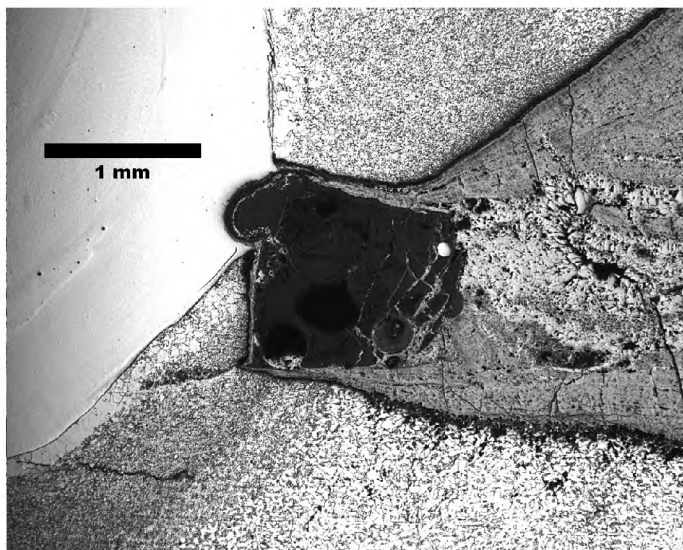
BETA LAB No.M10198- CS4-01/ LS3 BOTTOM	TESORO REFINING AND MARKETING COMPANY ANACORTES REFINERY 10200 W. MARCH POINT ROAD T91WA4428 ANACORTES, WA 98221	CUSTOMER P.O. No.: 4501667904
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LABORATORY REPORT-CS4-01/ LS3 Bottom

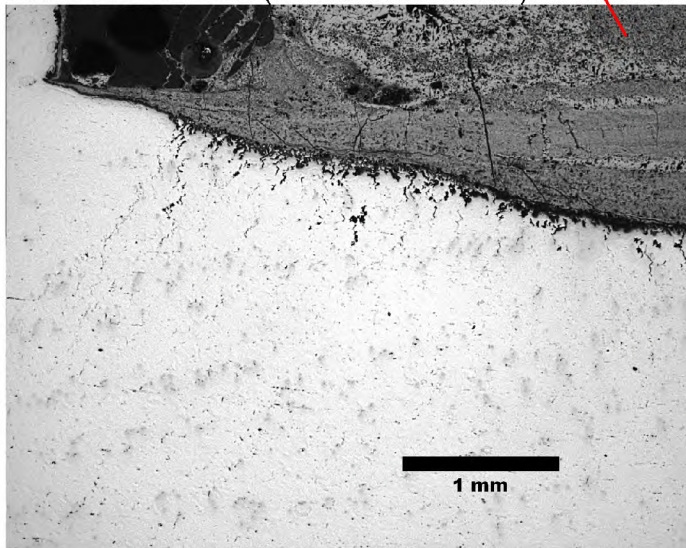
SAMPLE 18-M2



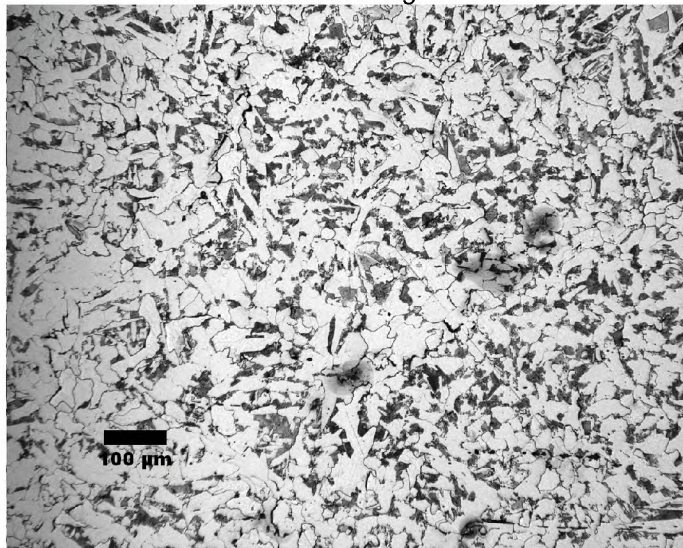
A. Root of the weld (left side of the mount). Un-etched



B. Same as in A at right. Etched



C. Base metal inside the angle, left side. Un-etched



D. Same as in C at left at higher magnification, etched

Figure 15- ID on top