



TESTING, RESEARCH, CONSULTING AND FIELD SERVICES

Austin, TX - USA | Anaheim, CA - USA | Anderson, SC - USA | Gold Coast - Australia | Suzhou - China

June 7, 2022

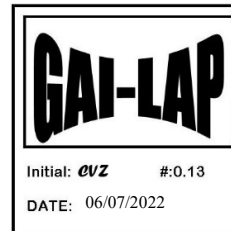
Nikoliya Boyanich

NewFields

9400 Station Street, Suite 300

Lone Tree, CO 80124

Re: FINAL LABORATORY TEST REPORT



Dear Ms. Boyanich:

Thank you for consulting TRI California for your material testing needs.

Enclosed is the **final** laboratory report for the Conformance testing of one (1) 40mil Smooth HDPE sample.

PROJECT NAME: Cripple Creek & Victor Mine VLF2 Ph 3

DATE REPORTED: June 7, 2022

REFERENCE TRI JOB NO.: CA220530

DATE RECEIVED: May 26, 2022

SAMPLED BY: New Fields

SAMPLE IDENTIFICATIONS:

SAMPLE ID

R#GTD0092600004 L#PPA821630

TRI CONTROL NUMBER

163505

TESTS REQUIRED / PERFORMED:

TEST METHOD

1. ASTM D6693
2. ASTM D792
3. ASTM D4218
4. ASTM D1238
5. ASTM D1004
6. ASTM D4833
7. ASTM D5596
8. ASTM D5199

DESCRIPTION

Tensile Properties
Specific Gravity Method A
Carbon Content Muffle
Melt Flow Index
Tear Resistance
Puncture Resistance
Carbon Black Dispersion
Thickness

TEST RESULTS: The test results are summarized in the attached Table 1.

Note: The general conditioning and testing of the material samples identified in this report were performed within the range of the laboratory environmental conditions; i.e., 20-24°C and 45-65% RH. Otherwise, the actual environmental conditions are indicated in the respective test method reported.

Respectfully,

TRI Environmental, Inc. - California

Maria Espitia
Quality Assurance

Chad Blackwell
TRI-CA Director

Signatures are on file

It shall be noted that the sample tested is believed to be true representatives of the material produced under the designation herein stated. In addition, the attached laboratory tests results are considered indicative only of the quality of samples/specimens that were actually tested. The appropriate test methods hereby employed are based on the current and accepted industry practices. TRI neither accepts responsibility for nor makes claims to the intended final use and purpose of the material. The test data and all associated project information shall be held confidential and not to be reproduced and/or disclosed to other parties except in full and with prior written approval from pertinent entity duly authorized by the respective client or from the client itself. It is our policy to keep physical records of each job for two (2) years commencing from the date of receipt of the samples and keep its corresponding electronic file for seven (7) years. **Retained conformance samples are disposed of after one (1) month.** On the other hand, should you need us to keep them at a longer period, please advise us in writing.

3 Pages Total (including this sheet)



TABLE 1.
MATERIAL PROPERTIES
CLIENT: NewFields
PROJECT: Cripple Creek & Victor Mine VLF2 Ph 3

Date Received: 5/26/2022
Date Reported: 6/7/2022
Client Sample ID: R#GTD0092600004 L#PPA821630
Material Description: 40mil Smooth HDPE

QC'd By: *Maria Espitia*
TRI Job No.: CA220530
TRI Control No.: 163505

SPECIMENS											Avg.	Std. Dev.	Min	Max	Proj. Specs.
	1	2	3	4	5	6	7	8	9	10					
METHOD	DESCRIPTION														
ASTM D5199	Thickness (mils)														
Procedure B	Apparatus: Dead weight dial Micrometer with 6.35 mm (0.250 in) dia presser foot and a pressure of 43.10 kPa (6.38 psi) provided by a 142 gm dead weight. Loading time: 5 sec Specimen Size: 10pcs.-3in. Diameter.														
	40	41	42	42	43	41	42	42	42	42	42	1	40	43	40 min. ave. 36 min.
ASTM D792	Specific Gravity (23/ 23°C)														
Method A	0.9538	0.9535									0.9537	0.0002	0.9535	0.9538	0.940 min. ave.
ASTM D6693	Tensile Properties:														
Type IV	Test Specimens: Type IV, Width of narrow section: 0.25in, Length of narrow section: 1.3in, Width Overall: 0.75in, Length Overall: 4.5in Rate of Separation: 2"/min														
	Tensile Strength at Yield (lbs/ in.-width)														
MD	109	114	109	113	109						111	2	109	114	63 min. ave.
TD	110	116	111	110	109						111	3	109	116	
	Tensile Strength at Break (lbs/ in.- width)														
MD	219	219	215	216	204						215	6	204	219	114 min. ave.
TD	187	208	211	187	194						197	12	187	211	
	Elongation at Yield (percent, %)														
MD	19	16	17	16	18						17	1	16	19	12 min. ave.
TD	14	17	16	16	14						15	1	14	17	
	Elongation at Break (percent, %) Gauge Length = 2.0 in.														
MD	859	848	773	864	828						834	37	773	864	700 min. ave.
TD	823	909	922	850	922						885	46	823	922	
ASTM D1004	Tear Resistance (lbs)														
Die C	Machine: Tensile machine equipped with constant rate of extension and chart recorder.														
MD	37.4	34.8	38.0	37.0	37.1	36.0	36.0	36.1	35.7	35.0	36.3	1.0	34.8	38.0	28 min. ave.
TD	32.0	31.1	30.0	32.5	33.0	36.0	34.1	35.0	35.0	34.1	33.3	1.9	30.0	36.0	
	Thickness (mils)														
MD	41	41	40	40	41	41	41	41	42	41	41	1	40	42	-
TD	40	41	40	42	42	42	40	42	40	41	41	1	40	42	

Continued on next page

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LEGENDS:
MD - MACHINE DIRECTION
TD- TRANSVERSE DIRECTION



TABLE 1.
MATERIAL PROPERTIES
CLIENT: NewFields
PROJECT: Cripple Creek & Victor Mine VLF2 Ph 3

Date Received: **5/26/2022**
Date Reported: **6/7/2022**
Client Sample ID: **R#GTD0092600004 L#PPA821630**
Material Description: **40mil Smooth HDPE**

QC'd By: Maria Espitia
TRI Job No.: **CA220530**
TRI Control No.: **163505**

SPECIMENS																Proj. Specs.
1	2	3	4	5	6	7	8	9	10	Avg.	Std. Dev.	Min	Max			
METHOD	DESCRIPTION															
ASTM D4833	Puncture Resistance (lbs) <i>Specimens were tested as directed in Test Method D4833. They were clamped without tension between circular plates of a ring clamp attachment secured in the tensile machine. Test specimens were extended beyond the outer edges of the clamping plates.</i>															
	117	117	116	113	112	111	111	107	105	105	111	5	105	117	72 min. ave. 9 in Cat. 1 or 2 1 in Cat. 3	
ASTM D5596	Carbon Black Dispersion (category rating per reference chart PCN: 12-455960-38)											10 out of 10 in Category 1				
	1	1	1	1	1	1	1	1	1	1						
ASTM D1238 Procedure A	Melt Flow Index (grams/ 10 minutes) <i>Condition FR-190/2.16.; Thin 0.1-0.25" specimen strips were charged to the cylinder at a test temperature of 190^o C and 2.16kg load.</i>															
	0.2641	0.2648	0.2647								0.2645	0.0004	0.2641	0.2648	-	
ASTM D4218	Carbon Content <i>Apparatus: Muffle Furnace</i>															
	2.50	2.46									2.48	0.03	2.46	2.50	2.0 - 3.0	

(End of Table 1)

(Sheet 2 of 2)

By accepting the data and results presented on this report, the Client agrees to limit the liability of TRI Environmental, Inc. from Client and all other parties for claims on issues, due to the use of this data, to the cost for the respective tests presented in this report; and the Client agrees to indemnify and hold harmless TRI Environmental, Inc. from and against all liabilities in excess of the aforementioned limit.

LEGENDS:
MD - MACHINE DIRECTION
TD- TRANSVERSE DIRECTION

