




MINERALS PROGRAM INSPECTION REPORT
PHONE: (303) 866-3567

The Division of Reclamation, Mining and Safety has conducted an inspection of the mining operation noted below. This report documents observations concerning compliance with the terms of the permit and applicable rules and regulations of the Mined Land Reclamation Board.

MINE NAME: Priola Pit	MINE/PROSPECTING ID#: M-2007-087	MINERAL: Sand and gravel	COUNTY: Adams
INSPECTION TYPE: Monitoring	INSPECTOR(S): Jared L. Ebert	INSP. DATE: June 26, 2017	INSP. TIME: 10:00
OPERATOR: Albert Frei & Sons Inc.	OPERATOR REPRESENTATIVE: Ben Frei	TYPE OF OPERATION: 112c - Construction Regular Operation	
REASON FOR INSPECTION: Normal I&E Program	BOND CALCULATION TYPE: Partial Bond	BOND AMOUNT: \$77,000.00	
DATE OF COMPLAINT: NA	POST INSP. CONTACTS: None	JOINT INSP. AGENCY: None	
WEATHER: Clear	INSPECTOR'S SIGNATURE: 	SIGNATURE DATE: June 28, 2017	

GENERAL INSPECTION TOPICS

This list identifies the environmental and permit parameters inspected and gives a categorical evaluation of each. No problems or possible violations were noted during the inspection. The mine operation was found to be in full compliance with Mineral Rules and Regulations of the Colorado Mined Land Reclamation Board for the Extraction of Construction Materials and/or for Hard Rock, Metal and Designated Mining Operations. Any person engaged in any mining operation shall notify the office of any failure or imminent failure, as soon as reasonably practicable after such person has knowledge of such condition or of any impoundment, embankment, or slope that poses a reasonable potential for danger to any persons or property or to the environment; or any environmental protection facility designed to contain or control chemicals or waste which are acid or toxic-forming, as identified in the permit.

(AR) RECORDS-----	<u>N</u>	(FN) FINANCIAL WARRANTY-----	<u>Y</u>	(RD) ROADS-----	<u>NA</u>
(HB) HYDROLOGIC BALANCE-----	<u>Y</u>	(BG) BACKFILL & GRADING-----	<u>Y</u>	(EX) EXPLOSIVES-----	<u>NA</u>
(PW) PROCESSING WASTE/TAILING----	<u>NA</u>	(SF) PROCESSING FACILITIES-----	<u>NA</u>	(TS) TOPSOIL-----	<u>Y</u>
(MP) GENL MINE PLAN COMPLIANCE-	<u>Y</u>	(FW) FISH & WILDLIFE-----	<u>NA</u>	(RV) REVEGETATION----	<u>Y</u>
(SM) SIGNS AND MARKERS-----	<u>Y</u>	(SP) STORM WATER MGT PLAN----	<u>NA</u>	(CI) COMPLETE INSP----	<u>NA</u>
(ES) OVERBURDEN/DEV. WASTE-----	<u>NA</u>	(SC) EROSION/SEDIMENTATION---	<u>Y</u>	(RS) RECL PLAN/COMP--	<u>Y</u>
(AT) ACID OR TOXIC MATERIALS-----	<u>NA</u>	(OD) OFF-SITE DAMAGE-----	<u>Y</u>	(ST) STIPULATIONS-----	<u>NA</u>

Y = Inspected and found in compliance / N = Not inspected / NA = Not applicable to this operation / PB = Problem cited / PV = Possible violation cited

OBSERVATIONS

This was a monitoring inspection of the Priola Pit, DRMS Permit No. M-2007-087, operated by Albert Frei & Sons, Inc. (AFS). I, Jared Ebert and Wally Erickson of the Colorado Division of Reclamation, Mining and Safety (Division) conducted the inspection. Present during the inspection was Al Frei and Ben Frei with AFS, Steve O'Brian with Environment, Inc., and Jack Storti with Berg Hill Greenleaf Ruscitti Attorneys at Law who represents AFS. Also present during the inspection was Gary Priola and Lena Vander Laan of CAP Land CO who own the property.

This is a 13.68 acre 112c operation in Adams County. The approved post mine land use for the site is Industrial/Commercial.

Backfilling and Grading:

Mining of the site is complete and the Operator has backfilled the pit excavation with inert material. The site consists of an elevated area with a generally level top with side embankments around the perimeter. The reclamation plan calls for creating a level pad with a consistent top elevation of 5,107 feet with side embankment graded to a 3H:1V slope. Mr. Ben Frei provided the Division with a map that shows 86 location points where AFS had surveyed the final site elevation. This data was collected on October 3, 2014. Also, Mr. Ben Frei provided a copy of a notebook that listed the 86 survey points and cited the "desired" elevation, the actual elevation and the elevation difference between the two measurements. The "desired" elevations listed appear to be based on a site configuration/drainage plan that is different than the approved reclamation plan. This data is included as an attachment with this report.

Based on a review of the data and map submitted, the final top elevation of the site ranges from 5,114.15 feet on the northwest end of the site, 5,096.2 feet at the south end of the site and about 5,105 feet at the east end of the site. The northern portion of the top of the backfilled area gently slopes to the southeast. The southern portion of the top of the backfilled area gently slopes to the east. The currently approved mining and reclamation plan indicated that a 25 foot buffer zone would exist around the pit and backfilled area and that mining and backfilling would not occur within this area. However, it appears the Operator has backfilled material within this 25 foot buffer zone as the toe of the fill extended to the boundary of the site.

The side slopes of the backfilled embankment were observed. The side slopes appeared to be graded to a 3H:1V slope with the exception of one portion of the embankment on the western most end of the northern portion of the site. The slope at this location appears to be steeper than a 3H:1V slope and appeared to be closer to a 2H:1V slope. Several erosion gullies were observed on the slopes of the embankment that will need to be repaired and stabilized.

Financial Warranty:

The current financial warranty held for the site appears to be adequate at this time but may be re-evaluated if the Operator revises the reclamation plan as discussed in the Reclamation Success section of the report.

Hydrologic Balance:

The exposed groundwater at the site has been completely backfilled. According to the mining plan, the northern most well was to remain at the site. The wellhead for this well was observed during the inspection and appeared functional. Two wells were said to be located in the south and central part of the mining operation that were to be extended above the top of the fill when reclamation was complete. It does not appear these wells have been extended.

This permit was approved with the following condition:

"Operator will monitor ground water levels up gradient and downgradient of the backfilled area for a period of two years following completion of reclamation to ensure that ground water is not mounding to levels that could adversely impact surrounding structures. If the City of Thornton does not allow use of their wells for needed monitoring, the

Operator must install piezometers to conduct the monitoring prior to initiating mining activities.”

According to Mr. O'Brian, monitoring has occurred. Prior to final bond release the Operator will need to submit the results of this monitoring and demonstrate groundwater mounding is not occurring.

Gen. Compliance With Mine Plan:

Mining is complete at the site.

Reclamation Success:

As indicated above the approved post mine land use for the site is Industrial/Commercial. The Operator was to create a level pad area with 3H:1V side slopes around the fill embankment. The embankment side slopes are to be topsoiled and seeded with a specific seed mixture approved in the reclamation plan and the top of the filled area was to be stabilized with gravel or with crested wheatgrass. The site is not currently configured in accordance with the reclamation plan. As discussed in the Backfilling and Grading section of the report, the top of the fill is not a level area at a 5,107 foot elevation. This area has been backfilled and graded to create a gentle south and east slope for site drainage. Also, the Operator has backfilled material within the 25 foot buffer area. The side slopes of the fill embankment are not all graded to the required 3H:1V slope. Topsoil is stockpiled in several piles and berms along the east side of the site. The vegetation throughout the site consists primarily of annual and biennial weeds including several noxious species.

Regarding the site configuration/final topography, AFS has two options. Option one, AFS will need to grade the site to conform to the currently approved reclamation plan which would require removing the material from the 25 foot buffer zone and grading the area of the top of the embankment to a consistent 5,107 foot elevation. Option 2, AFS may revise the reclamation plan to update the site configuration that resembles the current site configuration/elevations.

During the permit review process, AFS committed to supplying the Division evidence that the entire site is zoned for Industrial use. To date, this evidence has not been submitted. Prior to final bond release, the Operator will need to demonstrate the site is zoned for industrial use.

Revegetation:

The vegetation at the site was weedy. The dominant species noted at the site was cheatgrass, field bindweed, and several types of noxious thistle. Other annual and biennial species existed at the site and there were areas where crested wheatgrass was observed. The Operator will need to conduct weed control activities and the site will need to be revegetated in accordance with the approved reclamation plan.

Sediment Control:

Several rills and gullies were noted along the embankment slopes that will need to be repaired and the area stabilized.

Topsoil:

Topsoil has been stockpiled in berms and piles on the east side of the site. These piles were stable.

Steeper than 3H:1V Slopes

PHOTOGRAPHS



Figure 1. Google earth Photo Map, Image Date 1/20/2017



Figure 2. Southwest fill slope. From the south end looking north.



Figure 3. North central corner looking northwest.



Figure 4. Erosion gully on fill embankment.



Figure 5. Western most fill slopes on the north side of the site. Greater than 3H:1V slope.



Figure 6. Northern most fill slope. From the west side looking east.



Figure 7. From the northwest end of the site looking southeast.



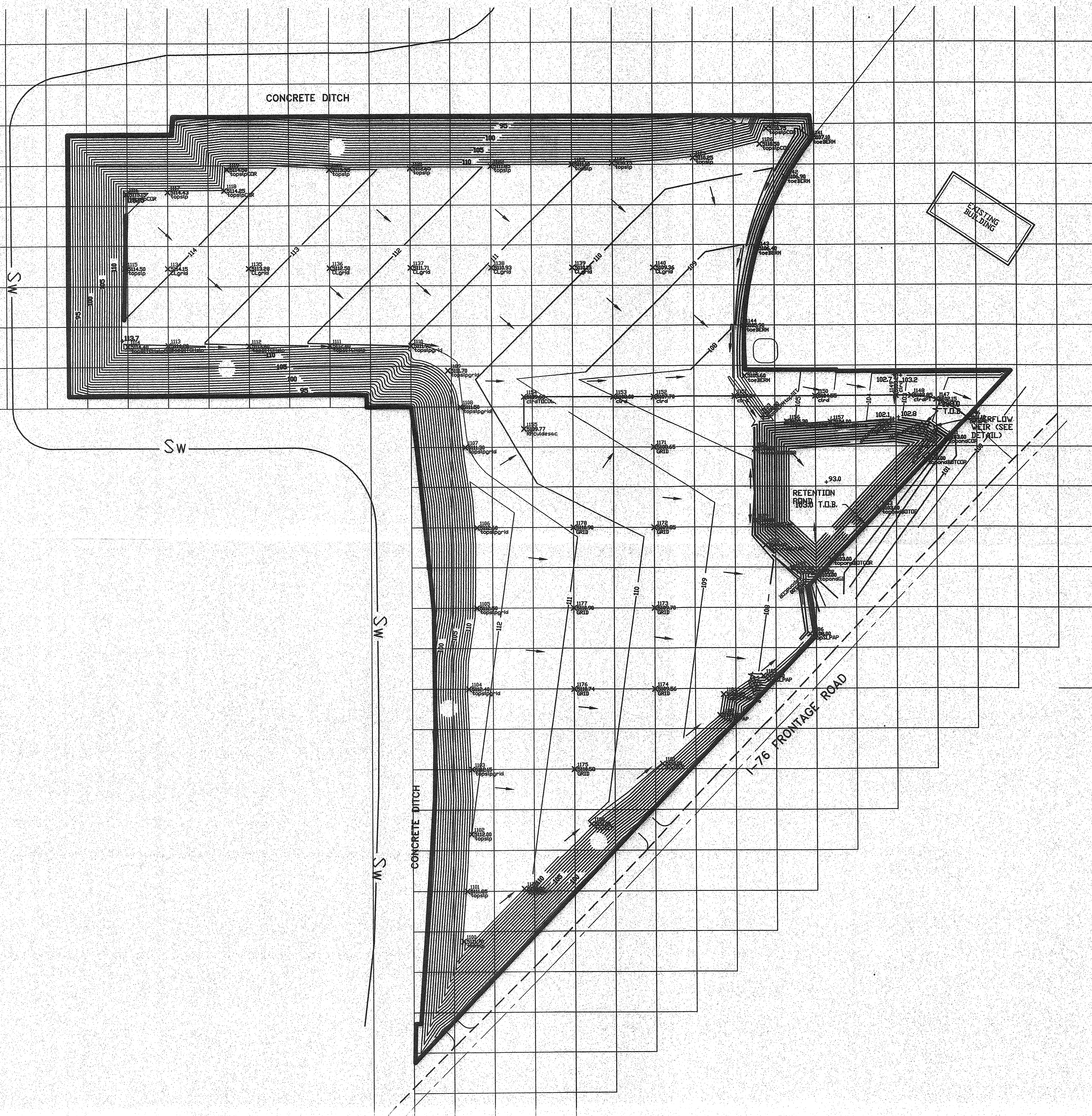
Figure 8. From the north end of the site looking south.

Inspection Contact Address

Ben Frei
Albert Frei & Sons Inc.
P.O. Box 700
Henderson, CO 80640

Enclosures

EC: Gary Priola, via e-mail
Lena Vander Laan, via e-mail
Steve O'Brian with Environment, Inc., via e-mail



PRIOLA SITE I-76 & DANHUA

POINT	DES	ELEV	DATE	NOTE
1100	5111.7	96.2	F13.5	Top Slope
1101	5111.85	96.2	F13.6	" Slope
1102	5112.0	99.7	F12.3	" "
1103	5112.15	5102.7	F9.5	" "
1104	5112.4	5103.2	F9.2	" "
1105	5112.5	5104.0	F6.3	(B.W. 70' Top Slope
1106	5112.6	5105.1	F7.4	Top Slope
1107	5111.6	5104.2	F7.4	Top Slope
1108	5111.5	5104.8	F6.7	Top Slope
1109	5111.7	5105.1	F6.6	" "
1110	5111.9	5105.5	F6.4	Top Slope
1111	5112.8	5107.1	F5.7	Top Slope
1112	5113.6	5108.0	F5.6	Top Slope
1113	5114.2	5108.5	F5.2	Top Slope
1114	5114.4	5107.0	F7.3	Top Slope
1115	5114.5	5108.6	F9.1	Top Slope
1116	5115.1	5108.6	F6.3	Top Slope
1117	5114.4	5110.1	F4.4	Top Slope
1118	5114.2	5108.9	F5.2	Top Slope
1119	5114.5	5108.4	F6.0	Top Slope
1120	5113.3	5107.3	F6.0	Top Slope
1121	5112.65	5106.1	F6.6	Top Slope
1122	5111.9	5104.2	F7.1	Top Slope

OCT. 3, 2014

ROGER

(3rd OVERLOT DESIGN)

POINT	DES	ELEV	DATE	NOTE
1123	5111.1	5104.7	F6.8	Top Slope
1124	5110.7			
1125	5110.2			
1126	5110.5	5107.3	F3.2	Top Slope
1127	5110.8	5107.8	F3.2	Top Slope
1128	5107.1	5108.0	C0.9	Top Slope
1129	5106.9	5107.8	C0.9	Top Slope
1130	5106.4	5104.5	C0.9	Top Slope
1131	5105.8	5105.8	F0.1	Top Slope
1132	5105.6	5107.8	F2.8	Top Slope
1133	5114.15	5108.6	F5.1	Top Slope
1134	5113.3	5108.2	F5.9	Top Slope
1135	5112.5	5107.9	F4.6	Top Slope
1136	5111.7	5106.3	F5.4	Top Slope
1137	5110.9	5105.3	F5.2	Top Slope
1138	5110.2	5104.3	F5.8	Top Slope
1139	5109.4	5104.9	F4.4	Top Slope

674/50

6/14/51

POINT ELEV Des C/F NOTES

1179	5099.5	5112.0	F12	Top Slope	F12 @ 1' TOP	F12 @ 1' TOP
1180	5100.8	5111.0	F8	Top Slope	F8 @ 1' TOP	F8 @ 1' TOP
1181	5105.2	5100.0	F4	"	F4 @ 1' TOP	F4 @ 1' TOP
1182	5105.0	5109.0	F4	"	F4 @ 1' TOP	F4 @ 1' TOP
1183	5101.2	5108.0	F7	"	F7 @ 1' TOP	F7 @ 1' TOP
1184	5103.5	5108.1	F5	"	F5 @ 1' TOP	F5 @ 1' TOP
1185	5105.9	5108.6	F2	"	F2 @ 1' TOP	F2 @ 1' TOP
1186	5107.7	5108.0	F0	Top Slope	F0 @ 1' TOP	F0 @ 1' TOP

POINT	Des	ELEV	C/F	NOTES	5094
1165	5103.5	5102.8	F2	Top Slope	5094
1167	5104.0	5103.6	F0	"	5094
1168	5103.0	5103.1	C0	"	5094
1169	"	5105.3	C2	"	5094
1170	"	5104.3	C1	"	5094
1171	"	5100.3	F2	"	5094
1172	"	5100.6	F2	"	5094
1173	"	5101.9	F1	"	5094
1174	"	5102.8	F0	"	5094
1175	"	5102.8	C3	"	5094
1176	"	5109.2	C4	"	5094
1177	"	5104.1	F3	"	5094
1178	"	5103.8	F4	"	5094
1179	"	5103.2	F4	"	5094
1180	"	5102.7	F9	"	5094
1181	"	5103.5	F5	"	5094
1182	"	5103.6	F6	"	5094
1183	"	5102.8	F6	"	5094
1184	"	5101.9	F7	"	5094
1185	"	5102.8	F7	"	5094
1186	"	5102.7	F8	"	5094
1187	"	5104.2	F6	"	5094
1188	"	5104.7	F6	"	5094