

AGGREGATE HANDLING

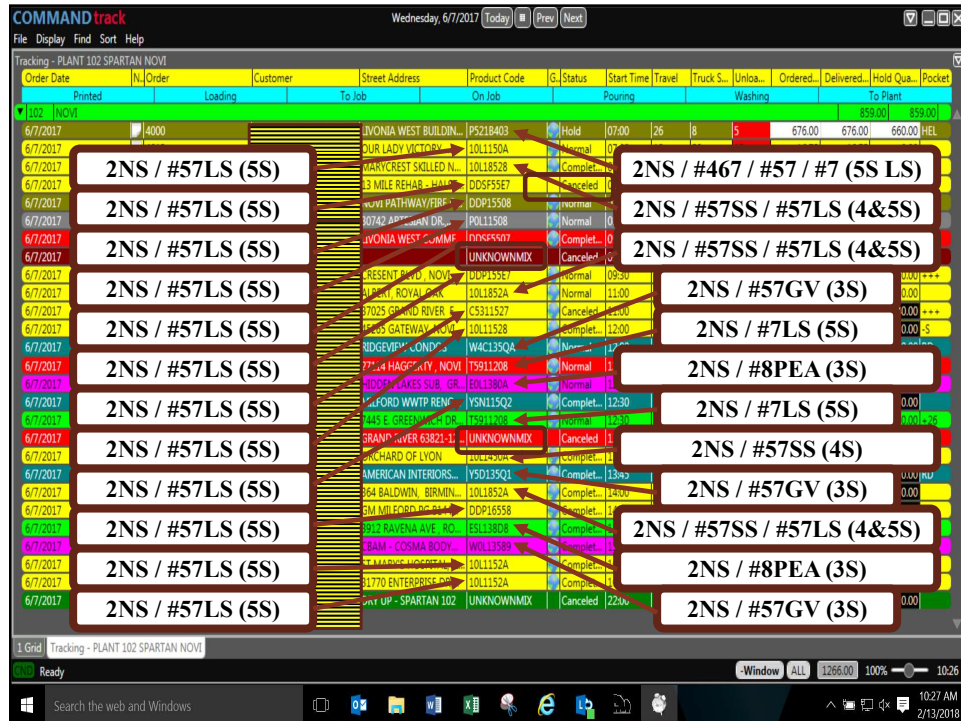
Superior Materials



1,815 Submittals 2017

WALL/FOOTING (resid.)	WS311528	5.6 SACK 6AA LS MRWR	6	5.0%	0.47	530	20% ASH
WALL/FOOTING (con.)	WS311528	5.6 SACK 6AA LS MRWR	8	5.0%	0.43	530	20% ASH
WALL/FOOTING (SPEC.)	WOL11528	4000 PSI 6AA LS MRWR 1/2 AIR	6	4.0%	0.45	564	20% ASH
WALL/FOOTING (SPEC.)	WOL11528	4000 PSI 6AA LS MRWR	6	6.0%	0.45	564	20% ASH
WALL/FOOTING (SPEC.)	WON11528	5000 PSI 6AA LS MRWR HALF AIR MRWR	5	4.5%	0.4	658	20% ASH
WALL/FOOTING (SPEC.)	WON11528	5000 PSI 6AA LS	4	6.0%	0.4	658	20% ASH
WALL/FOOTING (SPEC.)	WON11528	5000 PSI 6AA LS MRWR	4	6.0%	0.39	658	20% ASH
WALL/FOOTING (SPEC.)	WON11529	5000 PSI 6AA LS HRWR	6	6.0%	0.39	658	20% ASH
WALL/FOOTING (SPEC.)	WON11529	5000 PSI 6AA LS HRWR TO BE USED WITH CNI	6	6.0%	0.39	658	20% ASH
WALL/FOOTING (SPEC.)	WON11529	5000 PSI 6AA LS/26A LS BLEND HRWR	6	6.0%	0.39	658	20% ASH
WALL/FOOTING (SPEC.)	WON11529	5000 PSI 17A LS HRWR	6	6.0%	0.39	658	20% ASH
WALL/FOOTING (resid.)	W391355A	2500 PSI 6A GRV	5	5.0%	0.61	390	25% ASH
WALL/FOOTING (resid.)	W391355B	2500 PSI 6A GRV MRWR	7	5.0%	0.63	390	25% ASH
WALL/FOOTING (SPEC.)	WOL1155A	3000 PSI 6AA LS	4	6.0%	0.53	470	25% ASH
WALL/FOOTING (SPEC.)	WOL1155B	3000 PSI 6AA LS MRWR	6	5.0%	0.53	470	25% ASH
WALL/FOOTING (resid.)	W421355A	3000 PSI 6A GRV	5	5.0%	0.58	420	25% ASH
WALL/FOOTING (resid.)	W421355B	3000 PSI 6A GRV MRWR	7	5.0%	0.58	420	25% ASH
WALL/FOOTING (resid.)	WOL1455A	3000 PSI 100% 6AA SLAG STONE	4	6.0%	0.54	470	25% ASH
WALL/FOOTING	WOL1455B	3000 PSI 100% 6AA SLAG STONE MRWR	6	6.0%	0.54	470	25% ASH
WALL/FOOTING	WOL1455C	3000 PSI 6AA LS/6AA BF BLEND	4	6.0%	0.48	517	25% F ASH
WALL/FOOTING (resid.)	W481355A	3500 PSI 6A GRV	5	5.0%	0.52	485	25% ASH
WALL/FOOTING (resid.)	W481355B	3500 PSI 6A GRV MRWR	6	5.0%	0.5	485	25% ASH
WALL/FOOTING (SPEC.)	WOL1355A	3500 PSI 6A GRV	4	6.0%	0.47	517	25% ASH
WALL/FOOTING (SPEC.)	WOL1355B	3500 PSI 6A GRV MRWR	6	6.0%	0.47	517	25% ASH
WALL/FOOTING (SPEC.)	WOL1155A	4000 PSI 6AA LS	4	6.0%	0.45	564	25% ASH
WALL/FOOTING	WOL1155B	4000 PSI 6AA LS MRWR	6	6.0%	0.45	564	25% ASH
WALL/FOOTING	WOL1155C	4000 PSI 6AA LS MRWR	6	6.0%	0.45	564	25% ASH
WALL/FOOTING (SPEC.)	WOL1155D	4000 PSI 17A LS MRWR	5	6.0%	0.45	564	25% ASH
WALL/FOOTING (resid.)	WOL1355A	4000 PSI 6A GRV	4	5.0%	0.45	564	25% ASH
WALL/FOOTING (resid.)	WS31355A	5.6 SACK 6A GRV	4	5.0%	0.47	530	25% ASH
WALL/FOOTING (resid.)	WS31355B	5.6 SACK 6A GRV MRWR	6	5.0%	0.47	530	25% ASH
WALL/FOOTING	WS31355C	5.6 SACK 6AA/26A BLEND MRWR	6	6.0%	0.45	530	25% ASH
WALL/FOOTING (SPEC.)	WOL1355B	4000 PSI 6A GRV MRWR	6	6.0%	0.44	564	25% ASH
WALL/FOOTING	WOL1855A	4000 PSI 6AA LS/6AA BF BLEND	4	6.0%	0.45	564	25% ASH
WALL/FOOTING (SPEC.)	WOL1855B	4000 PSI 6AA LS/6AA BF BLEND MRWR	6	6.0%	0.45	564	25% ASH
WALL/FOOTING (SPEC.)	WOL1855C	4000 PSI 6AA LS/6AA BF BLEND FC:100 MRWR	6	6.0%	0.45	564	25% ASH
WALL/FOOTING (SPEC.)	WOL145E7	4000 PSI 100% 6AA BF	4	6.0%	0.45	564	25% FASH
WALL/FOOTING	WOL145E8	4000 PSI 6AALS/6AABF BLEND MRWR	6	6.0%	0.45	564	25% FASH
WALL/FOOTING	WOL145E9	4000 PSI 100% 6AA SLAG STONE MRWR	6	6.0%	0.45	564	25% FASH
WALL/FOOTING	WON175E9	5000 PSI 6AA LS/26A LS BLEND HRWR	6	6.0%	0.39	658	25% F ASH
WALL/SLURRY	WOP11559	6000 PSI 6AA LS HRWR	6	6.0%	0.35	705	25% ASH
WALL/SLURRY	WOP11259	6000 PSI 26A LS HRWR	6	6.0%	0.35	705	25% ASH
WALL/FOOTING (SPEC.)	WS1135E9	3000 PSI 6AA LS MRWR	6	5.0%	0.51	470	25% SLAG
WALL/FOOTING (SPEC.)	WSL110E4	4000 PSI 6AA LS	4	6.0%	0.45	564	25% SLAG
WALL/FOOTING (SPEC.)	WSN115E9	4000 PSI 6AA LS MRWR	5	6.0%	0.4	658	25% SLAG
WALL/FOOTING (SPEC.)	WSL115E9	4000 PSI 6AA LS MRWR	5	6.0%	0.44	564	25% SLAG
WALL/FOOTING (SPEC.)	WSL135E8	4000 PSI 6A GRV MRWR	6	6.0%	0.44	564	20% SLAG
WALL/FOOTING (SPEC.)	WSL135E9	4000 PSI 6A GRV MRWR	6	6.0%	0.43	564	25% SLAG
WALL/FOOTING (SPEC.)	WSL185E4	4000 PSI 6AA LS/6AA BF BLEND	4	6.0%	0.45	564	25% SLAG
WALL/FOOTING (SPEC.)	WSL185E8	4000 PSI 6AA LS/6AA BF BLEND MRWR	5	6.0%	0.44	564	25% SLAG
WALL/FOOTING (SPEC.)	WSN117E8	4000 PSI 6AA LS/26A LS MRWR	6	6.0%	0.43	611	25% SLAG
WALL/FOOTING (SPEC.)	WSM115E9	4500 PSI 6AA LS HRWR	6	6.0%	0.4	611	35% SLAG
WALL/FOOTING (SPEC.)	WSN115E9	5000 PSI 6AA LS HRWR	6	6.0%	0.4	658	25% SLAG
WALL/FOOTING (SPEC.)	WSN115E9	5000 PSI 6AA LS HRWR	6	6.0%	0.39	658	40% SLAG
WALL/FOOTING (SPEC.)	WSN159W9	4500 PSI 6AA LS HRWR WHITE CEMENT, SLAG, TYPE I BLEND	8	6.5%	0.41	658	SLAG/WHITE
WALL/FOOTING (SPEC.)	WSN135W9	4000 PSI 6A NAT. HRWR WHITE CEMENT, SLAG, TYPE I BLEND	8	6.5%	0.4	658	SLAG/WHITE





Key Elements

- Initiation:
 - Project request
 - Operations if material is standard
 - Sales & QC if material is an exotic
- Preparation for use:
 - Quality review (QC)
 - Batch system set up (QC)
 - Yard set up (Ops)
 - Yard bins
 - Ingredient code(s)
- Delivery (use):
 - Schedule order such that bin is available (CS)
 - Loading bins with proper material (Ops)

"Exotic Materials" are understood to be materials we don't regularly stock at each plant; for example:

<u>Steel fibers – any type</u>	<u>ICE</u>
<u>Blended fibers</u>	<u>Colors</u>
<u>Macro fibers</u>	<u>Bagged Pozzolans</u>
<u>Light weight aggregate</u>	
<u>Odd sized aggregates (+2", 17A, 26A, round stone (for SMI plants))</u>	
<u>Micro silica</u>	
<u>White cement</u>	
<u>Type K cement</u>	

And other such items not normally kept in inventory

Customer Name: _____ XXXXXXXXXXXXX

Project Name: _____ MSU FRIB HOT CELL _____ Job/MDOT #: _____

Start Date: 2/15/2018 _____ Shipping Plant Code: 14 _____

<u>Exotic Material</u> <u>Command Code</u>	<u>Description</u>	<u>Qty Required</u>	<u>Other Comments</u>
AUHSDN	OTR MANSAND / Brennen Street Dock	390 TONS	50 tons / week usage

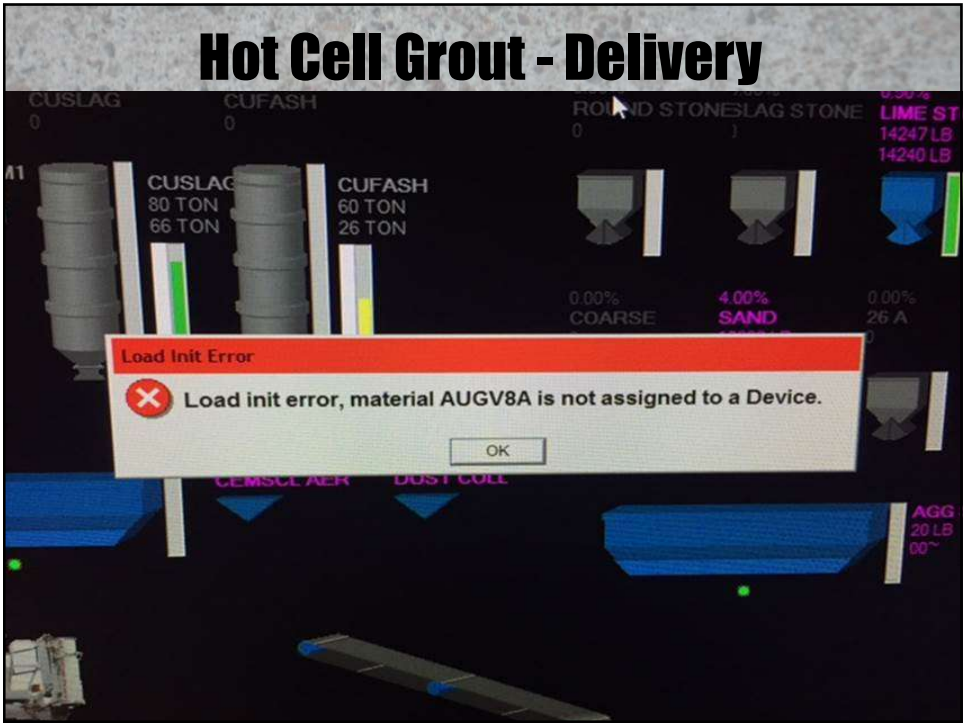
Notes

OTR MANSAND (ONTARIO TRAP ROCK MANUFACTURED SAND). ONLY BRING IN 50 TONS / WEEK.

Submitted by: _____ REID _____ Date: 2/7/2018

Hot Cell Grout - Set Up

Item code	Description	Short description
AUASDN	ARCHITECTURAL WHITE SAND	WHITE SAND
AUCSDA	SANDAE*CONCRETE SAND-DOT JOB-AIR	SAND AE
AUCSDN	SANDNA*CONCRETE SAND-NAIR	SAND NA
AUFSDA	SLAG*CONCRETE SAND	SLAG SAND
AUGV2A	34R*½" NATURAL STONE/GRAVEL	34R STONE
AUGV5A	6A*1" NATURAL STONE/GRAVEL	6A NATURAL STONE
AUGV6A	17A*¾" NATURAL STONE	17A NATURAL STONE
AUGV8A	PEASTONE*¾" NAT STONE/GRAVEL	¾" PEASTONE
AUH55N	HEAVY WEIGHT COARSE AGGREGATE	HEAVY COARSE
AUHSDN	HEAVY WEIGHT FINE AGGREGATE	HEAVY FINE
AUL4CA	COARSE AGGREGATE FOR P1M MIXES	COARSE AGG
AUL7IA	INTERMEDIATE AGGREGATE FOR P1M MIXES	INTERMEDIATE AGG
AULS2A	26A LIMESTONE	26A LIMESTONE
AULS4A	#467 LIMESTONE	467 LIMESTONE
AULS5A	6AA AE*1" LIMESTONE	6AA LIMESTONE AE
AULS5M	6AA 58-003 FOR DM, S2M	6AA 58-003
AULS5N	6AANA*1" LIMESTONE (3S)	6AA LIMESTONE NA
AULS6A	17A LIMESTONE	17A LIMESTONE
AULS8A	31A LIMESTONE STONE	31A LIMESTONE
AULSDA	OHIO #9S LIME STONE	OHIO #9S LIME STONE
AULW6AC	¾" LIGHTWEIGHT- HAYDITE C	HAYDITE C LTWT
AULW8AB	HAYDITE*¾" LIGHTWEIGHT-TYPE B	HAYDITE B LTWT
AULWDA	LIGHTWEIGHT SAND	LTWGT SAND
AUSS5A	6AABF*1" SLAGSTONE	6AA SLAG STONE



COMMAND track

Wednesday, 6/7/2017 [Today] [Prev] [Next]

Tracking - PLANT 102 SPARTAN NOVI

Order # 2NS / #467 / #57 / #7 (5S LS)

Order #	Address	Product Code	Status	Start Time	Travel	Truck S.	Unloa...	Ordered...	Delivered...	Hold Qua...	Pocket
6/7/2017	4000	JVONIA WEST BUILDING	PS218403	Hold	07:00	26	8	5	676.00	676.00	660.00
6/7/2017	4013	OUR LADY VICTORY - ...	10L1150A	Normal	07:00	18	20	15	16.75	16.75	0.00
6/7/2017	4039	MARYCREST SKILLED N...	10L18528	Completed	07:00	23	20	15	39.00	39.00	0.00
6/7/2017	4052	3 MILE REHAB - HALST...	DDSF5567	Canceled	07:30	20	20	15	300.10	0.00	0.00
6/7/2017	4002	NOVI PATHWAY/FIRE D...	DDP15508	Normal	08:00	18	25	20	68.00	68.00	0.00
6/7/2017	4028	40742 ARTESIAN DR...	10L11508	Normal	08:20	22	40	40	27.00	27.00	0.00
6/7/2017	4003	JVONIA WEST COMME...	DDSF5507	Completed	09:00	30	30	30	100.00	100.00	0.00
6/7/2017	4019	UNKNOWNMIX	UNKNOWNMIX	Canceled	09:30	20	120	40	4.99	0.00	11.00
6/7/2017	4032	CRESENT BLVD. NOVI	DDP15567	Normal	09:30	20	5				+++
6/7/2017	1055	ALBERT ROYAL OAK	10L1852A	Canceled	10:00	05	30				+++
6/7/2017	4024	7025 GRAND RIVER F...	CS311527	Canceled	11:00	16	35				---
6/7/2017	4029	45265 GATEWAY NOVI	10L11528	Completed	12:00	60	90				---
6/7/2017	4031	EDGEVIEW CONDOS	WAC135QA	Normal	12:00	30	30				RD
6/7/2017	4042	77114 HAGGERTY, NOVI	TS911206	Normal	12:00	30	30				RD
6/7/2017	4055	HIDDEN LAKES SUB GR	10L1380A	Completed	12:00	20	170				FEA
6/7/2017	4021	MILFORD WWTP RENO...	YSN11502	Completed	12:30	25	45				---
6/7/2017	4050	445 E. GREENWICH DR.	TS911206	Normal	12:30	25	40	50	9.00	9.00	0.00
6/7/2017	4001	GRAND RIVER 63821-12...	UNKNOWNMIX	Canceled	13:00	20	15	15	150.10	0.00	0.00
6/7/2017	4043	ORCHARD OF LYON	10L1450A	Completed	13:30	15	30	30	88.00	88.00	0.00
6/7/2017	4004	AMERICAN INTERIORS...	YS0135Q1	Completed	13:45	15	22	22	81.00	81.00	0.00
6/7/2017	1043	654 BALDWIN, BIRMIN...	10L1852A	Completed	14:00	35	45	45	6.00	6.00	0.00
6/7/2017	4053	5M MILFORD PG 8144...	DDP16558	Completed	14:00	25	30	30	5.50	5.50	0.00
6/7/2017	4057	3122 RAVENNA AVE. RD...	ESL13808	Completed	15:00	35	35	30	14.00	14.00	0.00
6/7/2017	4058	8AM - COSMA BODY...	WOL13589	Completed	15:30	15	40	40	4.50	4.50	0.00
6/7/2017	4038	ST MARY'S HOSPITAL L...	10L1152A	Completed	16:00	30	30	30	2.00	2.00	0.00
6/7/2017	4059	31770 ENTERPRISE DR...	10L1152A	Completed	16:00	30	25	25	2.50	2.50	0.00
6/7/2017	7102	DRY UP - SPARTAN 102	UNKNOWNMIX	Canceled	22:00	1	1	1	0.01	0.00	0.00

1 Grid Tracking - PLANT 102 SPARTAN NOVI

Ready

Window ALL 1266.00 100% 1026

Search the web and Windows

10:27 AM 2/13/2018

Hot Cell Grout - Delivery

1	2	3	4	5	6	7	8
Category	Total Cementitious Content	Sand Description	Coarse Aggregate Description	Aggregate Size	Ash%	Admix/Slump/Air	
1 Standard Commercial (CM)	1	1 Primary Sand	Primary Rock		10	NR w/ air 0-2%	1
2 2" Pump Mix (ZPM)	2	2 Birds Eye Sand	Limestone (LS)	1/2"	20	MR w/ air 0-2%	2
3	3	3 Coarse blend, manufactured sand only (MS)	Gravel (GRV)		30	HR w/ air 0-2%	3
4	4	4 Fine blend, fine sand only (FS)	Slag Stone (SS)	#467 or 1-1/2"	40	NR w/ air	4
5	5	5 DOT spec sand (DOTCS)	Granite (GR)	#57 or 1"	25	MR w/ air	5
6	6	6 White Sand	Basalt (BS)	#57 or 3/4"	50	HR w/ air	6
7	7	7 Slag Sand	Low Shrink Blend (SAA/31A)		35, 70	NR w/ high air	7
8	8	8 Mason Sand	Slag Stone Blend	#8 or 3/8"	15, 80	MR w/ high air	8
9 High Strength >9999 (HS)	9	9 User Defined Agg or Blends	Lightweight B		5	HR w/ high air	9
0	0	0 None	None	None	None	None	0
A Architectural (AR)	A	A Architectural sand1	Architectural rock1		5	no W/ w/ high air	A
B Blockfill (BF)	B	B	457 Blend		10	P20+ 40 basic NA	B
C	C	C	6A Natural/6AABF Blend		15	P20+ 65 basic NA	C
D DOT (DOT)	D	D			20	P20+ 90 basic NA	D
E Exposed Aggregate (EX)	E	E			25	P20+ 40 basic AE	E
F Flowfill (FF)	F	F			30	P20+ 65 basic AE	F
G Grout (GRT)	G	G			35	P20+ 90 basic AE	G
H High Early Strength (HES)	H	H			40	Rheocel 25	H
I	I	I					I
J	J	J			45		J
K	K	K			50		K
L Lightweight (LW)	L	L	Lightweight sand1	Lightweight C	55		L
M	M	M			60		M
N	N	N	Non-spec sand1	Non-spec Aggregate 1	65		N
O	O	O					O
P Special (SP)	P	P			70		P
Q	Q	Q			75		Q
R Shotcrete (SH)	R	R			80	Retarder & MR	R
S	S	S			85	SCC	S
T Topping Mix (TP)	T	T			90	Retarder & HR	T
U Perious (PRV)	U	U			Type III flyash		U
V	V	V			blended 60/15/25		V
W Wall/Footing (WF)	W	W			White		W
X	X	X	High Density Fine	High Density Coarse	Microsilica	Xypex	X
Y Trench/Foundation (TF)	Y	Y			Type K		Y
Z	Z	Z			blended 60/15/25		Z

LOAD QUANTITY 6.50 yd 1.00 ea	ORDERED QTY 30.00 1.00	CUMULATIVE QTY 24.00 24.00	PRODUCT ID GSX300QS VH2Y002	DESCRIPTION 3000 HOTCELL GRT SUPER PLASTICIZER
☐ ALL MATERIALS CERTIFIED MEETING MDOT'S SPECIFICATIONS				
WINTER SERVICE CHARGE				
BATCH TIME 13:17	LEAVE PLANT 13:17	ARRIVE JOB 14:17	BEGIN POUR 222	FINISH POUR 233
TOTAL WAIT TIME	PREVIOUS TRUCK 1403	LOAD # 5	SLUMP 10	MAP PAGE 065-1002
DATE 02/15/18	ORDER # 2001	PLANT 14	TRUCK # 1439	DELIVERY PROFESSIONAL MCNAMARA, FRANK
DRUM REV - AT PLANT	DRUM REV - START	DRUM REV - FINISH	DEPUTY WEIGHMASTER DAVE PREADMORE	
Truck 1439	Driver 2121	Disp Ticket Num 2295998	Ticket ID 4388	Time 13:17
Load Size	Mix Code	Returned	Qty	Date 2/15/18
Material	Design Qty	Required	Batched	% Var
CUCM1	558.00 lb	3575.00 lb	3560.00 lb	-0.42%
CUFASH	275.00 lb	1787.50 lb	1790.00 lb	0.14%
CUSL46	275.00 lb	1787.50 lb	1780.00 lb	-0.42%
CUCS00	250 lb	1694 lb	1700 lb	0.35%
ALHSON	2240 lb	15579 lb	15520 lb	-0.38%
WATER	52.90 gl	181.86 gl	181.00 gl	-0.47%
XUT11	44.0 oz	286.0 oz	286.0 oz	0.00%
XUH21	66 oz	429 oz	430 oz	0.23%
MIXWAT2	.00 %	.00 gl	.00 gl	
			% Moisture	Actual Wat
			4.25% M	8 gl
			7.00% M	122 gl
				181.00 gl