



Agenda



- MSRA Business
- Introduction of Technical Presentation: **Kirk Mantay**
- Presenters:
 - Chaney Enterprises: **Sal Bianco**
 - Rolanka International Inc.: **Udare Santha**
 - York Building Products: **Brian Anstiss**
 - Level Land Inc. : **Justin Brendel**
 - Chesapeake Valley Seed: **Jon Straughn**
- Q & A



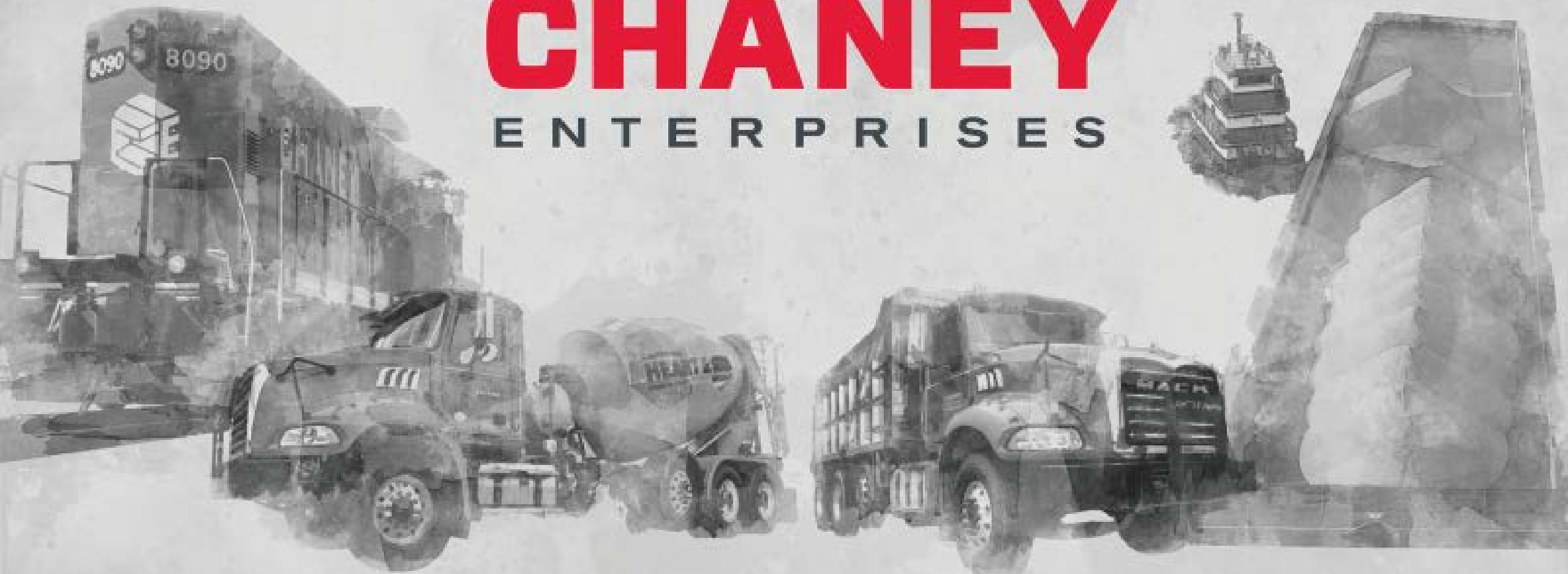
Spring 2019 Technical Presentation

An Evening with Stream
Restoration Material Suppliers



CHANNEY

ENTERPRISES



THIS IS WHO WE ARE!

We are passionate about providing ready-mix concrete, sand, gravel, stone, blended soils, and related construction supplies throughout the East Coast. Our focus is to improve your business by going the extra mile delivering the finest products to you the first time, on-time, every time.

- SAND GRAVEL
- READY MIX CONCRETE
- STONE RESALE
- CONSTRUCTION SUPPLIES

CHANNEY
ENTERPRISES

Mining and Reclamation

Process called “10-10-10”

✓ Preparing 10 acres

✓ Mining 10 acres

✓ Reclaiming & Restoring 10 acres



Mining and Reclamation



Mining and Reclamation



Mining and Reclamation



Mining and Reclamation





MINE SITE LOCATIONS

MARYLAND

VIRGINIA

DELAWARE

CHANEY
ENTERPRISES



Sand & Gravel Products

Crofton

Concrete sand
Flume sand –very fine
Washed $\frac{3}{4}$ " gravel and Pea Gravel

Riddle

Mason and Concrete Sand
Pea Gravel- $\frac{3}{4}$ " and 2" gravel

Select Fill

Asphalt Sand

Loveville

Mason and Concrete Sand
Pea Gravel- $\frac{3}{4}$ " and 2" gravel
Drainage Gravel (sandy)

Bridgetown

Mason and Concrete Sand
Pea Gravel- $\frac{3}{4}$ " and 2" gravel
Unscreened Topsoil

Tailings/kickoff

Waldorf

Mason and Concrete Sand
Pea Gravel- $\frac{3}{4}$ " and 2" gravel

Tailings

Limited Natural Bank Run
SHA and MDE Bio Soils
Ballfield mix

Specialty Blends made to order

CHANEY
ENTERPRISES

Sand & Gravel Products



DE - Sussex

Mason and Concrete Sand

Pea Gravel- $\frac{3}{4}$ " - 2" gravel

**Barging capability great for
shoreline restoration**

VA - Moss Neck

Mason and Concrete Sand

Pea Gravel- $\frac{3}{4}$ " - 2" gravel



TAILINGS

Not graded for size

Not washed

Generally 3" up to 6-8" diameter

Waldorf- Loveville and Moss Neck

Inventory @ 200 tons or less

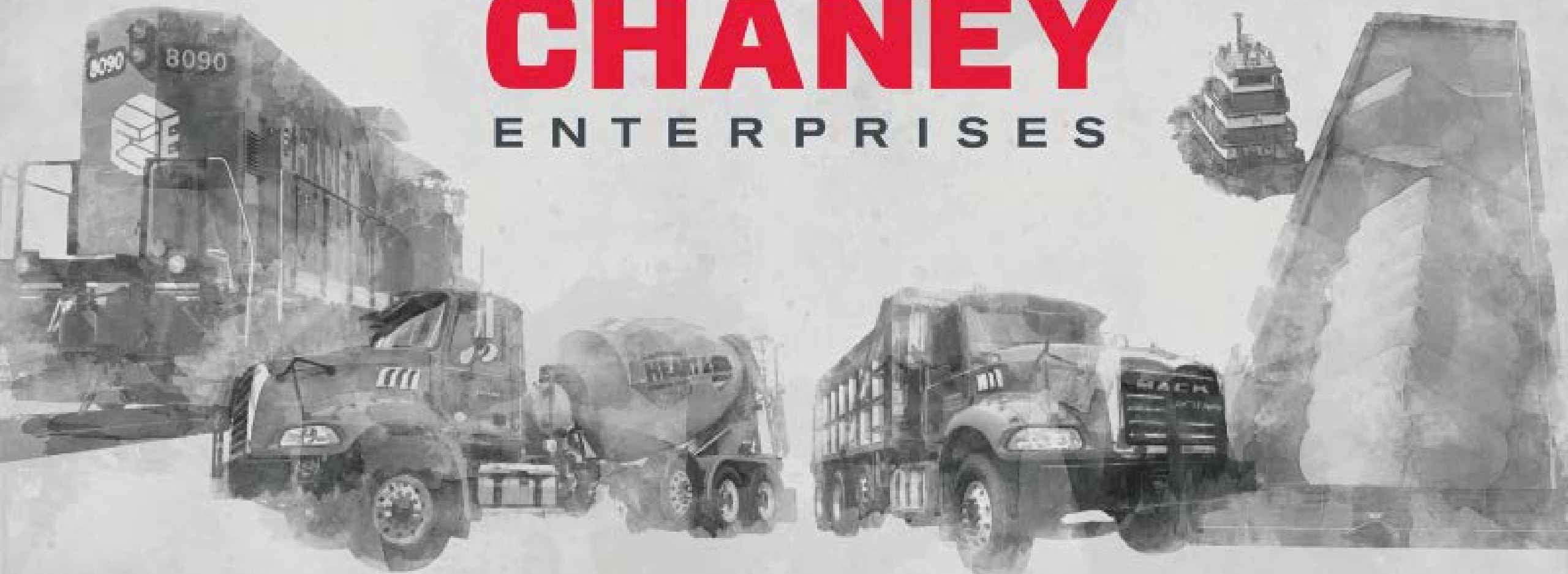
Bridgetown

Large pile mixed with clay/mud

17,000 tons

CHANNEY

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Coconut fiber (Coir)

The best natural fiber for protecting and preserving our environment

Udare S. Santha
RoLanka International, Inc.
Stockbridge, GA, USA

Coconuts Trees (Cocos nucifera)

- ▶ Tall palm tree native to East India
- ▶ Coconut trees grow all over Sri Lanka
- ▶ No waste - every part of the tree can be used
- ▶ Grown as a plantation crop
- ▶ Year round production
- ▶ Over 100,000 acres of coconuts grow in plantations
- ▶ Coconut fruits are harvested once in every 7 weeks
 - ▶ About 700 -1000 nuts/acre
- ▶ Manual harvest with a skilled labor force



Coconut plantation



Coconut fruits



Harvested coconuts

Coconut trees have a
life span of 60-80
years.

Uses of Coconut Trees

- ▶ Mainly for food
- ▶ Water inside is healthy to drink
- ▶ The outer hard shell is burnt to make activated carbon
- ▶ Left over husks are processed for fiber
- ▶ Coconut leaves can be used as temporary roofing material
- ▶ Wood can be used as lumber or firewood



The image is a vertical composition. The top half shows a large, dense pile of coconut husks, which are light brown and have a rough, textured surface. The bottom half shows a pile of dried coconut fiber, also known as coir, which is a golden-brown color and has a very fibrous, tangled appearance. The background of the slide is white, with a green geometric design on the right side consisting of overlapping triangles and lines.

What is Coconut fiber (coir)

- ▶ Abundant, renewable natural resource
- ▶ Byproduct from the coconut industry
- ▶ No waste is generated

Processing of coir

- ▶ Traditional coir processing involves curing (retting) the coconut husks in freshwater for at least 3 months
- ▶ During curing, the coconut husks turn dark brown in color
 - ▶ Curing also increases the durability, strength and flexibility of the coir
- ▶ With increased demand, there are new machines to separate fiber without the retting process. This fiber is light brown in color and have less durability, strength and flexibility

Coir Separation

- ▶ With skilled processing, coir fiber is separated into different grades, depending on the length of the fiber
- ▶ This fiber separation process is done only in Sri Lanka. Many countries use coir as mixed fiber without separating

Bristle Coir Fiber
Longer, thicker coir fiber



Mattress Coir Fiber
Shorter, thinner fiber



Coir Dust

- ▶ Pith (dust) is left after processing the fiber
- ▶ An excellent soil-less plant growing medium for organic gardening
- ▶ Coir pith can also be used in worm cultures and as reptile bedding
- ▶ High absorption - good for environmental cleanups
- ▶ No waste at all



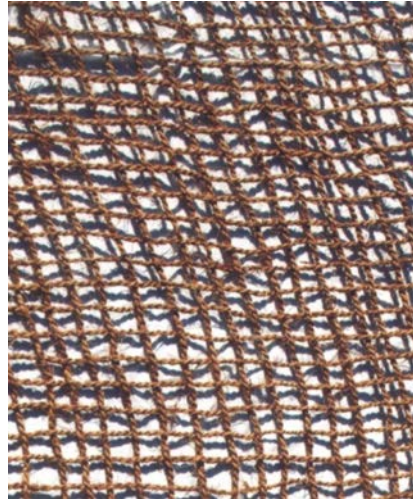
Advantages of Coir Fiber

- ▶ Higher strength compared to most natural fibers
- ▶ High water holding capacity and supportive of plant growth
- ▶ Excellent filtering medium
- ▶ Unpalatable for animals and environmentally safe
- ▶ Capable of making a variety of economical finished products
- ▶ Slow rate of decomposition, last longer
- ▶ Easily mixed with soil and can provide mulch
- ▶ Readily available

Product Performance

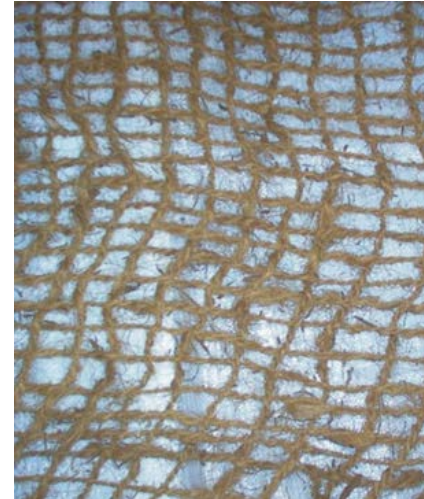
- ▶ Fiber processing method
- ▶ Type of fiber used

Bristle Coir Woven Mat



Darker brown

Mixed coir woven mat



Lighter brown

Advantages of bristle coir woven blankets



- ▶ Holds moisture and supports vegetation growth
- ▶ No plastic netting
- ▶ Open weave allows seeding through the mat and re-seeding, if necessary
- ▶ Easy installation
- ▶ Higher resistance to UV light compared to synthetic mats
- ▶ Coir twine poses no threat to wildlife
- ▶ High tensile strength and provide initial support in bioengineering applications
- ▶ Last 4 - 6 years

Side by side comparison coir mat vs synthetic mat



Synthetic Sediment Control Products



- ▶ Increases costs
- ▶ Not environmentally friendly

Coir Streambank Restoration Products



Thank you!



Lincoln Stone Quarry

M YORK
BUILDING
PRODUCTS
A STEWART COMPANY

5460 Lincoln Hwy West



Company Overview



Part of Stewart Companies, a ten-company conglomerate.



Group of 12 brands of auto dealerships. Also holds car wash, parts delivery, collision centers and used vehicle operations.



Billboard media company with boards located throughout central PA and northern MD.



Specializes in the acquisition, development, and management of upscale neighborhood shopping centers in central PA and northern MD.



Baltimore-based construction contractor noted for excellence in institutional construction and historic preservation.



Hanover, PA-based Welding, Fabricating, and Metal Servicing operation.



Company Overview



A full-service building, sitework and industrial contractor. Serving the central Pennsylvania and Maryland regions.



A real estate development and investment company that serves the Mid-Atlantic region.



An aggregate mining and construction materials supply company based in Carbondale, Colorado. Includes a ready-mix subsidiary.



Asphalt manufacturing concern, with multiple locations serving the greater York and Adams county areas.



A construction materials company producing aggregates, concrete block, colored mortars, concrete hardscapes, and construction supplies.

Quarry Facilities



YORK COUNTY, PA

Lincoln Stone Quarry
Roosevelt Stone Quarry



CECIL COUNTY, MD

Belvedere Sand & Gravel Plant
Cecil Sand & Gravel Plant
Perryville Sand & Gravel Plant



QUEEN ANNE'S COUNTY, MD

Eastern Shore Sand & Gravel Plant



Sand & Gravel Facilities



EASTERN SHORE PLANT

Located in Ingleside, MD
- Sand & Gravel Products

Quick Facts:

100 acres

XX tons per year



Sand & Gravel Facilities



Located in Port Deposit, MD
- Sand & Gravel Products

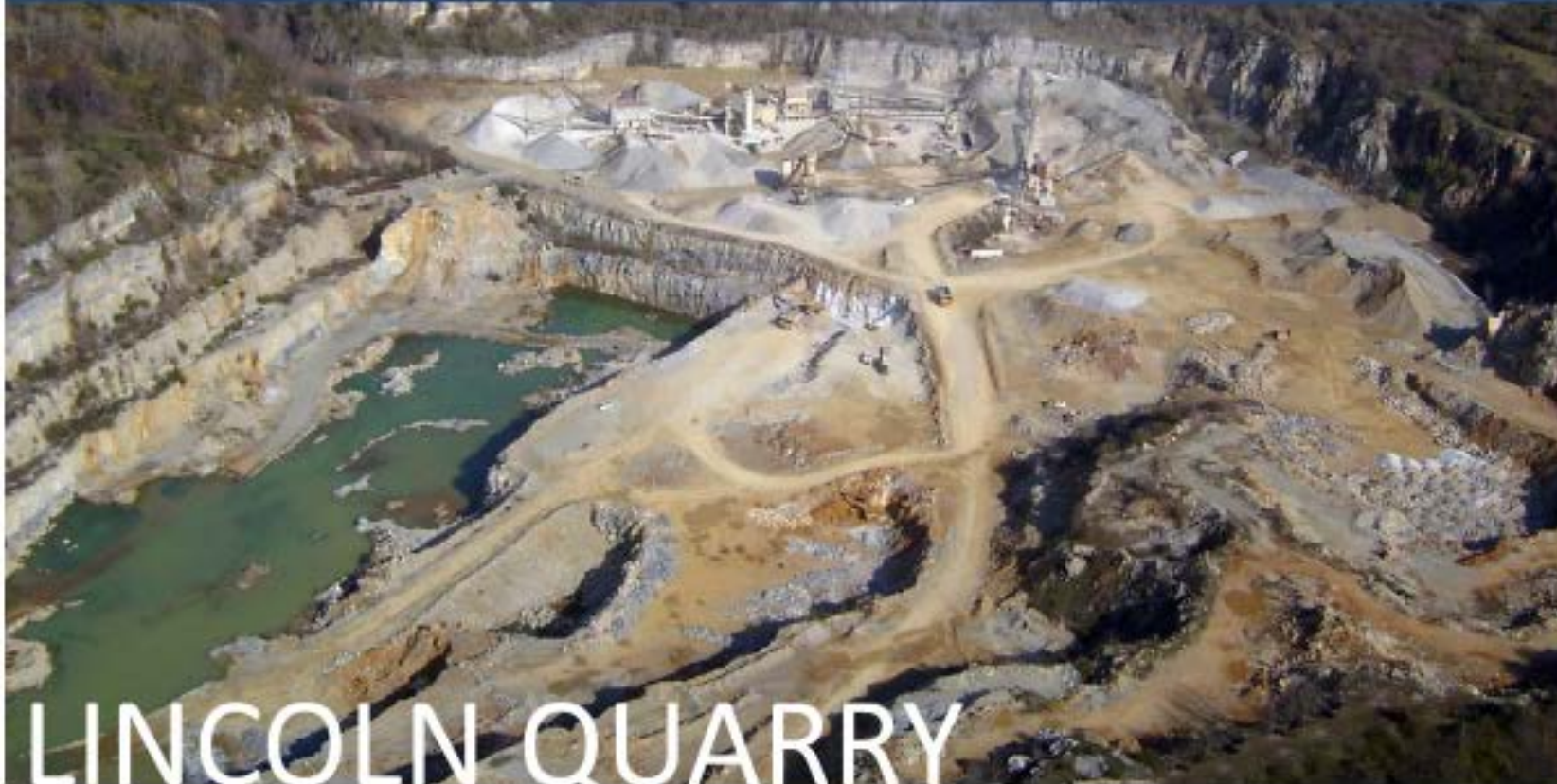
Quick Facts:
XX tons per year

BELVEDERE PLANT

- Operations 6am to 4pm, 6 days a week
- Produce 24 different products
- 63 employees between the 3 sites
- Surface mine only
- All natural. No crushing... just screens



Quarry Facilities

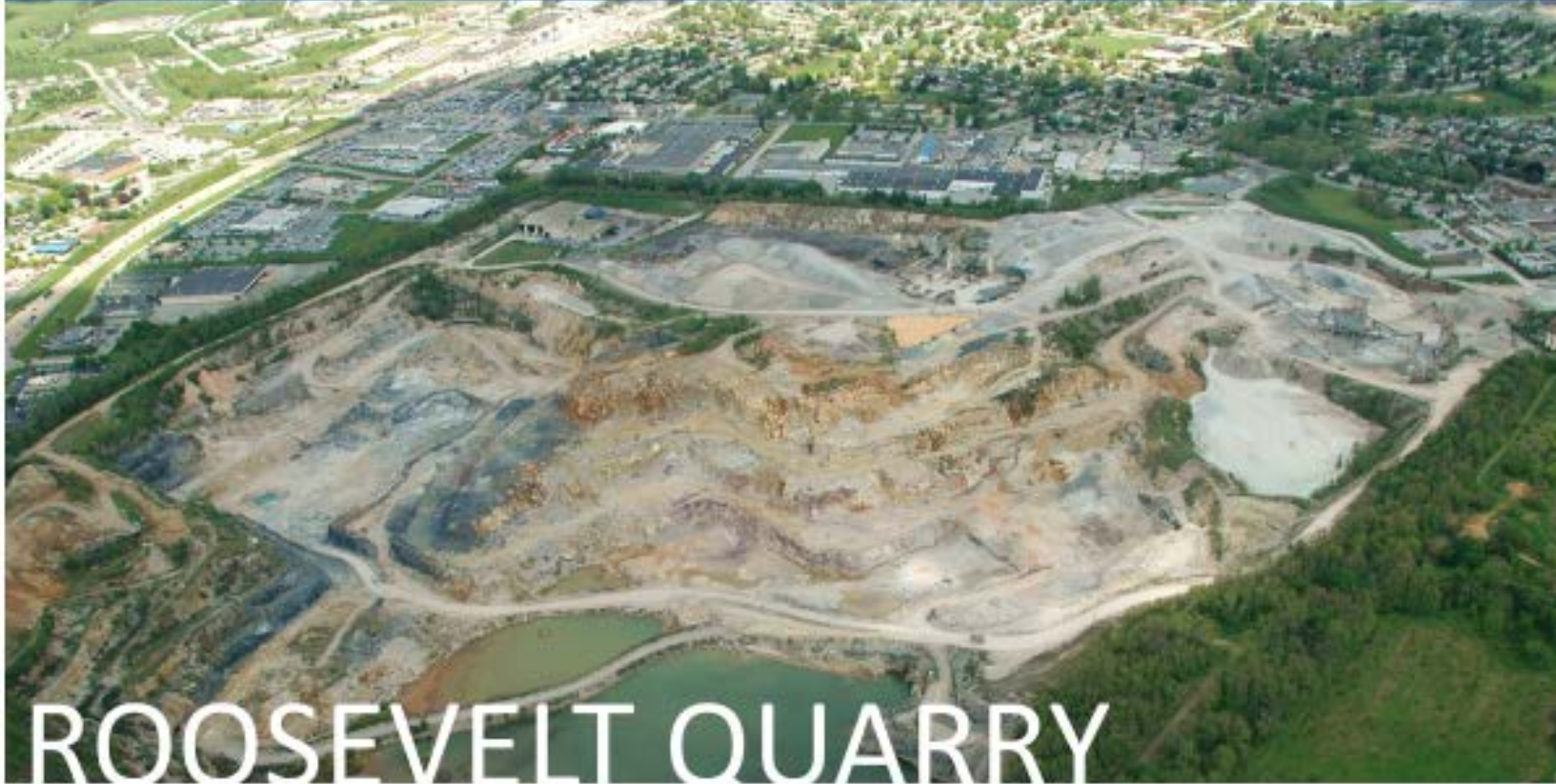


LINCOLN QUARRY

Located in Thomasville, PA
- Primarily Limestone Products

Quick Facts:
XX tons annually
1 asphalt plant on site

Quarry Facilities



ROOSEVELT QUARRY

Located in York, PA
- Primarily Limestone Products

Quick Facts:

XX tons annually
1 Asphalt plant on site

ROOSEVELT QUARRY

- Operations 6am to 4pm, 5 days a week
- Plant operates nine hours a day
- Constant pumping of water to dewater pit
- Blasting performed almost twice a week
- 25,000 ton blast on average
- 22 employees between the 2 pits
- Grapple on site used to load imbricated rock
- CAT 988 used to load dump trucks
- Produces more than 27 different products
- Main primary crusher averages 800 tons per hour

Quarry Facilities



Quarry Facilities



Quarry Facilities



Quarry Splits

Historical Quarry Production Yields/Needs

Crusher Run		25.00%
#8, #7		11.00%
1/4", #9		11.00%
Coarse Agg, 57, 6, 67		38.00%
MFCS, #10		10.00%
Rip Rap, misc		5.00%
		100.00%

Imbricated Rock

Imbricated = Stackable on both sides



Imbricated Rock

Imbricated = Stackable on both sides



Imbricated Rock

Armour Stone = Normally one flat side



Rip Rap Specifications

RIP RAP CLASS	SIZE	SIZE BY WEIGHT	% OF TOTAL BY WEIGHT
Class I	For guidance,	Heavier than 150 lbs.	0%
	approximate size range	Heavier than 40 lbs.	50%
	should be 3" – 12"	Heavier than 2 lbs.	10% max
Class II	For guidance,	Heavier than 700 lbs.	0%
	approximate size range	Heavier than 200 lbs.	50%
	should be 6" – 20"	Heavier than 20 lbs.	10% max
Class III	For guidance,	Heavier than 2000 lbs.	0%
	approximate size range	Heavier than 600 lbs.	50%
	should be 8" – 28"	Heavier than 40 lbs.	10% max

The values above are an approximation of the manufactured material. Due to its large sizing, this material cannot be physically tested in the laboratory.

Rip Rap Specifications

Test Performed	Result	Specification	Parent Stone Chemical Prop.	
Bulk Specific Gravity (GSB)	2.676	ASTM C 127	CHEMICAL	%
Bulk Specific Gravity (SSD)	2.702	ASTM C 127	Al ₂ O ₃	1.10
Apparent Specific Gravity (GSA)	2.746	ASTM C 127	CaCO ₃	62.1
Absorption	0.94	ASTM C 127	Fe ₂ O ₃	0.49
Los Angeles Abrasion	23.40	ASTM C131	K ₂ O	0.47
Alkali Reactivity	.026	AAHSTO C1293	MgCO ₃	24.8
Sodium Sulfate Soundness	2.54	AASHTO T104	MnO	0.02
			Na ₂ O	0.04
			SiO ₂	4.36
			TiO ₂	0.06

The actual stone is deemed to be a relatively hard stone in its nature, and there is no chance for alkali-carbonate reactivity. The stone is of low abrasion, and it is not anticipated that when the stone is placed in the size of pieces that the imbricated comes in, that there will be any significant breakdown due to erosion or dissolution from being in contact with water.



www.YorkBuilding.com



Woodbine, Maryland

Recycled Organic Products



WHO, WHAT, WHERE?

- Level Land Incorporated is engaged in Land Clearing and Organics Recycling
- Providing clearing on stream restorations, right of way projects, commercial projects
- We operate a wood waste recycling facility permitted by MDE to recycle and compost natural wood waste
- We provide transport for all of our products to job sites within 60 miles of our facility



TRADITIONAL RECYCLED ORGANIC PRODUCTS

- Coarse wood grindings
- Wood Chips – screened and un-screened
- Leaf compost



WOOD GRINDINGS

Source Material



First Grindings



WOOD CHIPS

Un-Screened



Screened



LEAF COMPOST

Source Material



Finished Product



ALTERNATIVE RECYCLED PRODUCTS

- Coarse Wood Screenings
- Medium Soil Screenings
- Coarse Recycled Assorted Product





COARSE WOOD SCREENINGS

Source: Chips & Wood
Waste

From top deck of
screener

3" plus material: large
chips, twigs

2-3,000 yds per year





MEDIUM SOIL SCREENINGS

Source: soil & landscape
waste

Second deck material

3/4" – 3" gravel, soil,
organics

1,500 yds per year





COARSE RECYCLED ASSORTED PRODUCT

Source: Landscape waste
& soil screening

Top deck material

3" – 8" rock, roots, other
assorted organics, inert
material, soil

2,000 yds per year



- Currently we find “homes” for these recycling by-products
- These materials would incorporate easily into many projects
- Use of alternative products would complete the recycle spectrum

THANK YOU!

Justin Brendel, President

443-677-0627

justin@levellandinc.com





Maryland Stream Restoration Association
Jon Straughn
March 27, 2019



Chesapeake Valley Seed, Inc.

Savage, MD



WHOLESALE DISTRIBUTOR OF:

***Seed**

- Native, Reclamation, Forage, Forbs/Wildflowers, Cover Crop & Turf
- Just about all seed except for vegetable & row crop (corn, soy beans, etc.)
- Full blending capabilities

***Erosion Control Blankets & Staples**

***Fertilizer & Lime**

***Hydromulch**

chesapeakevalleyseed.com











Availability vs. Commercially Available

Available...???

-Abundance of internet hand collectors. Small quantities and very high priced. Many times they sell w/out the seed test which tell us purity, germ, weed content, etc.

Commercially Available

- Farmers w/ production fields.
- Large quantities
- Wholesale pricing



Planting Equipment





Production Fields



Great Blue Lobelia



Fowl Bluegrass



Cardinal Flower Seed Pod



Staking Cardinal Flower

New England Aster



Oxeye Sunflower



Harvest Time

Key Harvest Factors

- Seed Moisture
- Ability to get into field



Yield Factors

- Moisture at pollination
- Timing of harvest
- Over maturation resulting in seed shatter

Custom Combines





Combining Wild Bergamot



Combining Purple Coneflower



Q-Sage Air Screen Cleaner









Cleaning Butterfly Milkweed

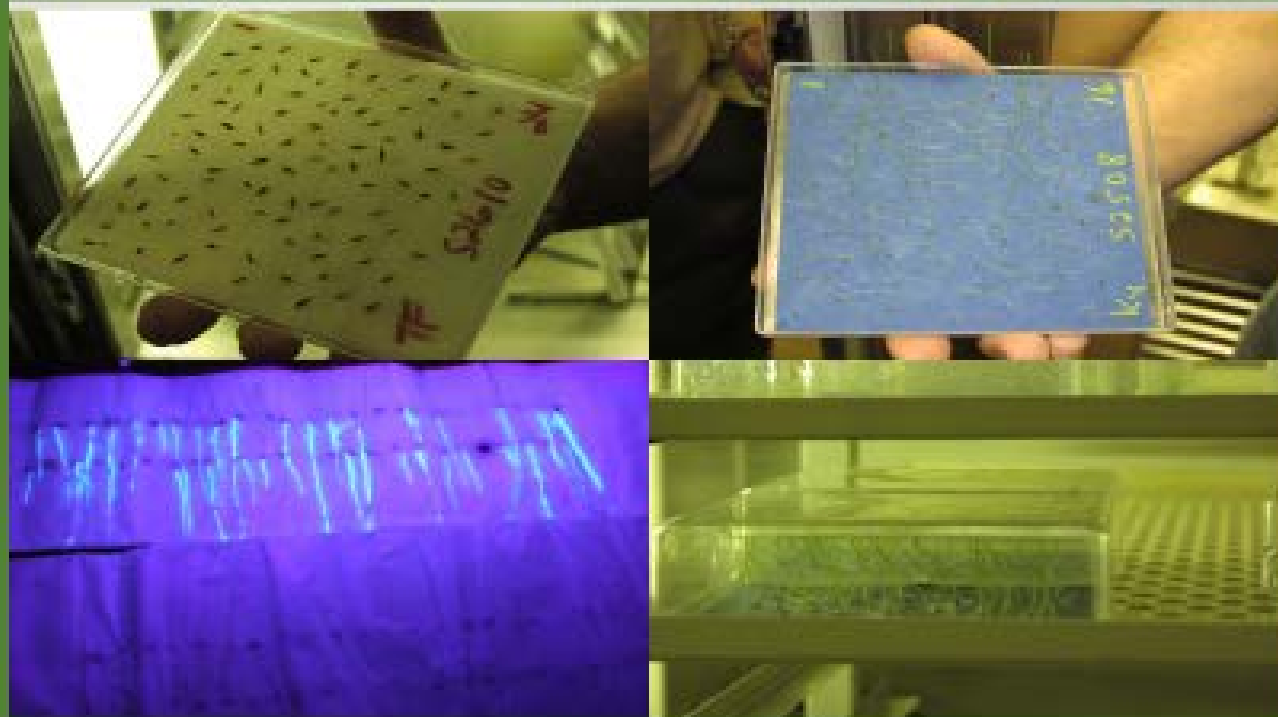


Seed Testing



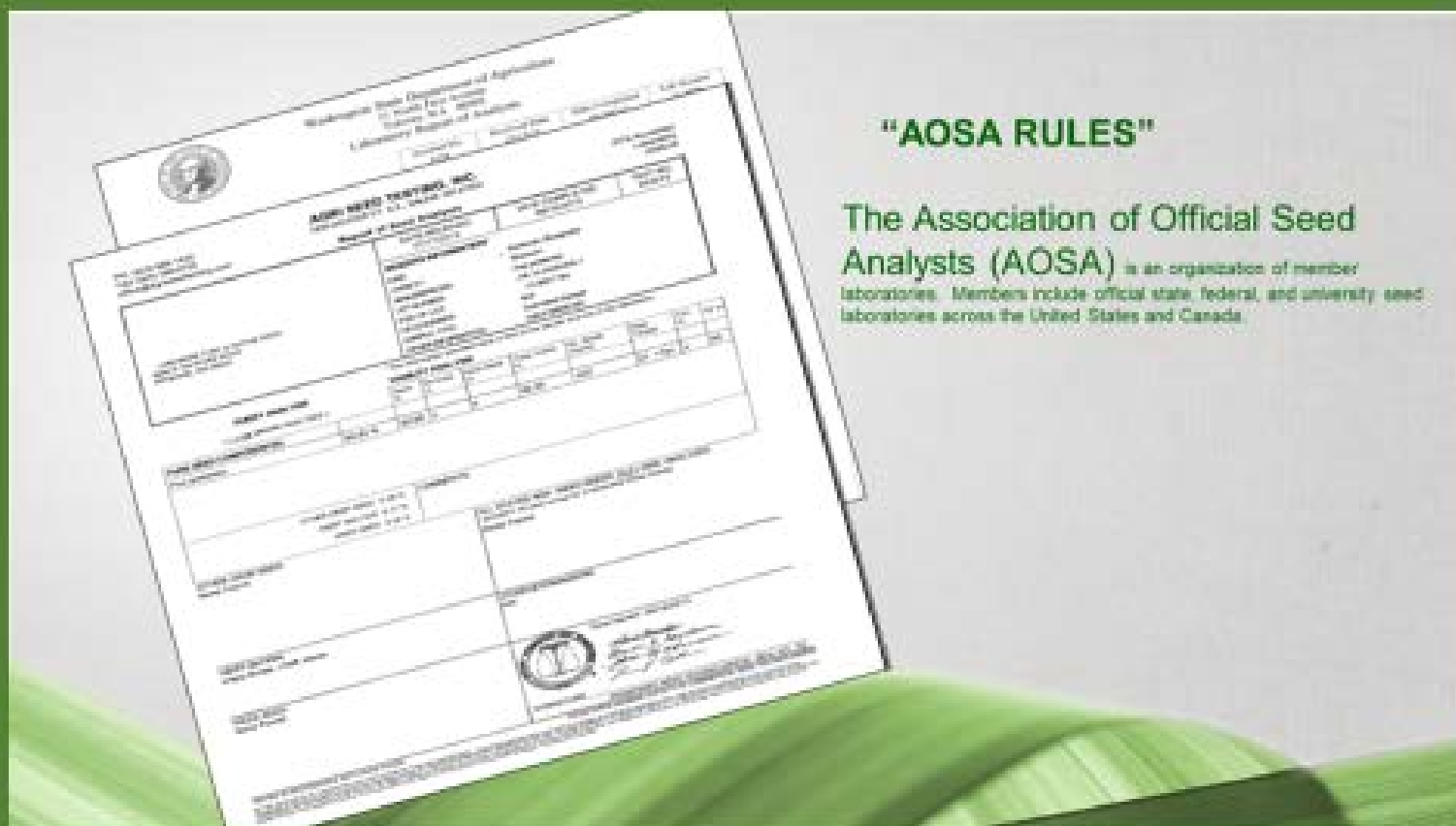
Purity Test

Seed Testing



Germination Test

Seed Testing



"AOSA RULES"

The Association of Official Seed Analysts (AOSA) is an organization of member laboratories. Members include official state, federal, and university seed laboratories across the United States and Canada.

Seed Test

Seed Testing

HYBRID POWER 90/10 MIXTURE

Lot: CV5-1308004

VARIETIES	PURE SEED	GDM	TEST DATE	ORIGIN
Regenerate Tall Fescue	29.72%	90%	Nov-13	OR
Persuasion Tall Fescue	29.70%	90%	Nov-13	OR
Gazelle II Tall fescue	29.65%	90%	Nov-13	OR
SPF 30 Kentucky Bluegrass	9.80%	90%	Nov-13	WA

OTHER INGREDIENTS:

OTHER CROP SEED 0.01%

INERT MATTER 1.12%

WEED SEED 0.00%

NOXIOUS WEEDS NONE FOUND

NET WEIGHT: 50 LB/22.67 KG

AMS 7093

SELL BY: Feb. 2015

in MD, DE, PA, NJ



CHESAPEAKE VALLEY
SEED

Seed Label...Why?

The information shown on a label, is required by either State or Federal laws. It is meant to supply information to consumers to enable them to make wise decisions as to the kind, variety, and quality of seed purchased

chesapeakevalleyseed.com

Seed Tag

Best Time For Availability is Now March/April



Why?

***Seed is harvested starting in late summer and continues until mid December.**

***Seed is cleaned during the winter months.**

***After cleaning samples are sent out for testing. Results take about 30 days to get back.**

***Species that produced poorly will sold out by May 1st.**

Monarch Butterfly Chrysalis
Swamp Milkweed



Monarch Butterfly
Wild Bergamot

Bee on Marsh Dense Blazingstar





CHESAPEAKE VALLEY
SEED

Jon Straughn

jstraughn@chesapeakevalleyseed.com





Questions?