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GREENFIELD JOHNSTOWN VHQ PROJECT REVIEW



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Greenfield Johnstown VHQ Project

- ◆ Greenfield is executing a project to allow for the production of Very High Quality Ethanol (VHQ).
- ◆ Very High Quality Ethanol is free of impurities and can be used in the following applications:
 - ◆ Sanitizers and cleaners
 - ◆ Pharmaceuticals Manufacturing
 - ◆ Medical grade applications
 - ◆ Food and beverage applications

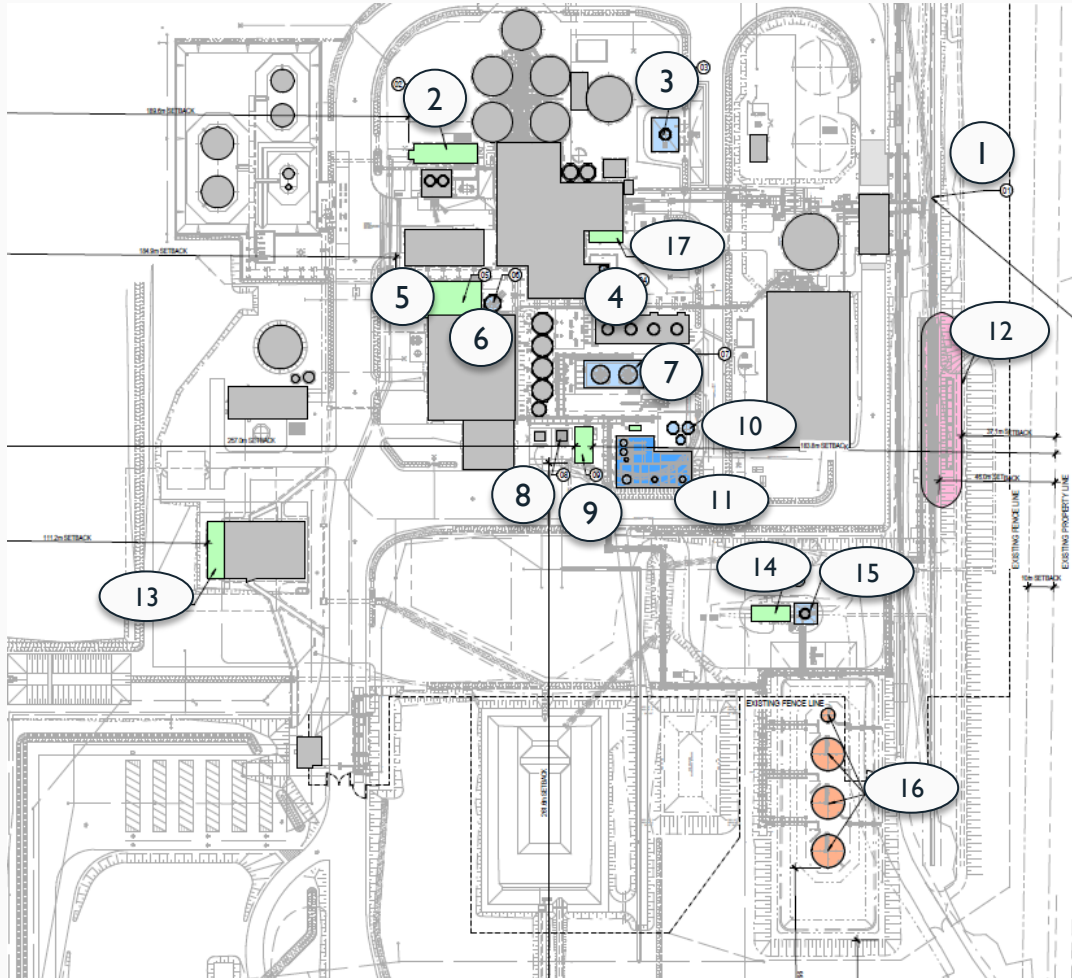
Greenfield Johnstown VHQ Project

- ◆ The project will see our plant corn consumption and output remain the same.
- ◆ It represents a \$105M investment in the Greenfield Johnstown site.
- ◆ As a result of the complexity of the new process and supply chain we will be hiring 20 new employees.
- ◆ The rail and tank farm portions of the project is planned to commission in September 2021
- ◆ The remaining portion of the project is planned to commission in March of 2022.

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Scope of work:

- 1) Rail Expansion
- 2) Lunchroom /office
- 3) Aqueous Ammonia System
- 4) Fusel Tank
- 5) Boiler Building
- 6) RO tank
- 7) Cooling Towers
- 8) New Transformer
- 9) Electrical Room
- 10) VHQ Alcohol Surge Tanks
- 11) VHQ Alcohol Unit
- 12) Rail Loading/Unloading and Spill Containment
- 13) Locker room expansion
- 14) VHQ Shipping Office
- 15) Denaturant Storage Tank
- 16) VHQ Storage Tanks & Spill Containment
- 17) Lab Expansion

Greenfield Johnstown VHQ Project

- ◆ In summary, Greenfield is investing ~\$105 million in the VHQ project in Johnstown.
- ◆ We expect to hire 20 new employees.
- ◆ The project is planned to be fully operational by March 2022.

REFERENCES

VHQ Distillation Columns

