CALIFORNIA SANDSTONES

Our California Assets Have More Potential for Growth

SANDSTONE INJECTOR PERFORMANCE

Sandstone Injector	Reservoir
870 / 870	Number of Wells (Tier 1/Total)
40-45	Number of 2019 Wells
98 / 93	WI/NRI
1 : 1	Producer to Injector Ratio
500 – 2,500	Depth (ft.)
2.5	Days to Drill (Days)
38	IP Production (Boe/d)
5	Time to Peak Rate (Months)
100	Net EUR (Boe)
100	% Oil
(3.53)	Brent Differential ($/bbl)
1,344	Fixed Opex per Well ($/month)
1.68	Variable Opex per boe ($/Boe)
8.37	Steam per boe ($/Boe)
0.36	Severance Tax ($/boe)
2.6	Ad Valorem Tax (%)
275	Gross D&C ($M/well)

MW/SS, Hill Tulare, Ethel D, Poso, Placerita

Well Type
Vertical

Completion type
Perforated

Permits
UIC / Drilling / AE

Stimulation Type
Steamflood

TYPE CURVE

SANDSTONE WELL PERFORMANCE

Sandstone Producer	Reservoir
940 / 1430	Number of Wells (Tier 1/Total)
190 - 215	Number of 2019 Wells
98 / 93	WI/NRI
1 : 1	Producer to Injector Ratio
500 – 2,500	Depth (ft.)
4.5	Days to Drill (Days)
14	IP Production (Boe/d)
0	Time to Peak Rate (Months)
41.2	Net EUR (Boe)
100	% Oil
(4.10)	Brent Differential ($/bbl)
2,300	Fixed Opex per Well ($/month)
2.31	Variable Opex per boe ($/Boe)
4.50	Steam per boe ($/Boe)
0.28	Severance Tax ($/boe)
2.6	Ad Valorem Tax (%)
350	Gross D&C ($M/well)

MW/SS, Hill Tulare, Ethel D, Poso, Placerita

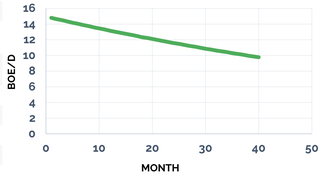
Well Type
Vertical / Horizontal

Completion type
Perforated / Slotted liner / Gravel Pack

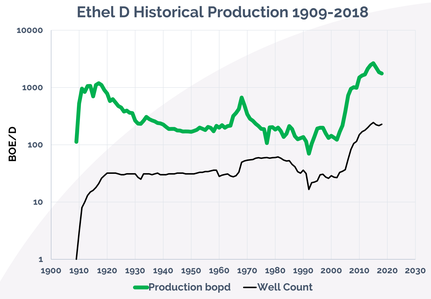
Permits
UIC / Drilling / AE

Stimulation Type
Cyclic Steam / Steamflood

TYPE CURVE



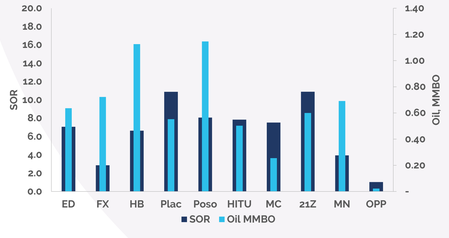
Ethel D Historical Production 1909-2018

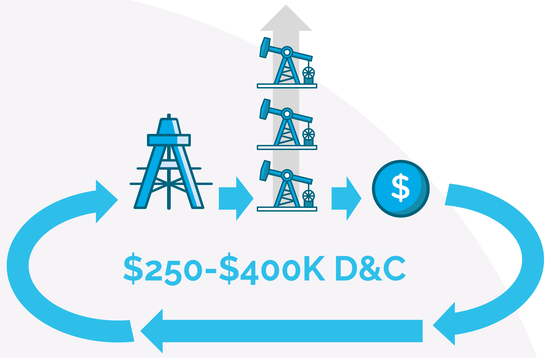


Opportunity– Ethel D Founding Lease 1909 Reached Peak Production in 2015

PROTECT AND GROW THE BASE

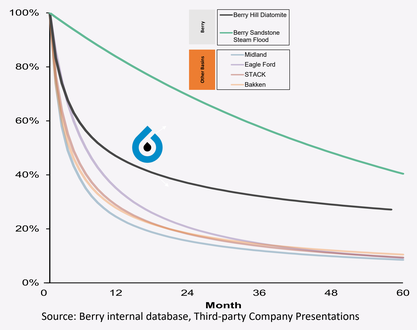
SANDSTONE THERMAL PROJECTS
12 MONTH STEAM TO OIL RATIO OF 7.1





Repeatable Results – Low Geologic and Drilling Risk

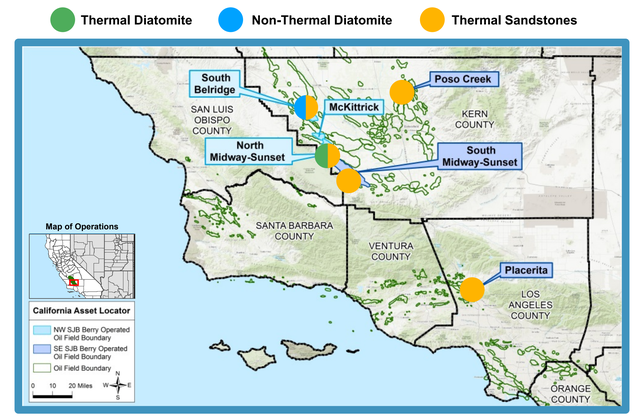
% OF INITIAL RATE FROM PEAK PRODUCTION (NEW WELLS)



Source: Berry internal database, Third-party Company Presentations

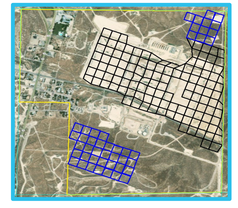
Shallow Decline -
Our projects are simple, shallow, inexpensive and repeatable

MAP OF OPERATIONS

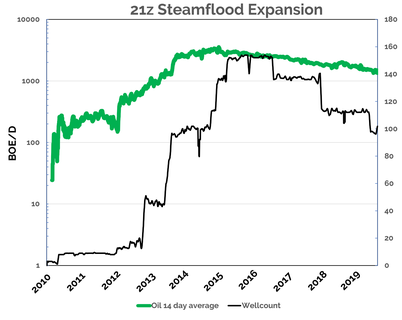


OPPORTUNITY

21Z



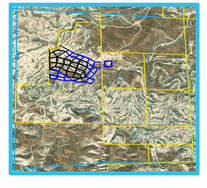
21z Steamflood Expansion



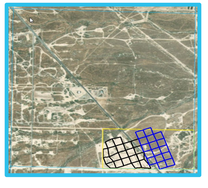
TULARE RESERVOIR PROPERTIES

Avg. Depth: 590 – 980 ft. MD
Avg. Gross Thickness: 350 ft.
Original NTG: 62%
Avg. Porosity: 33 %
Avg. oil sat.: 56%
Perm. Range: 1500 – 9,000 mD
Avg. Oil Gravity: 10.5 API
Avg. Viscosity: 8,900 cp (@122°F)

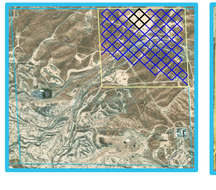
FORMAX



MAIN CAMP

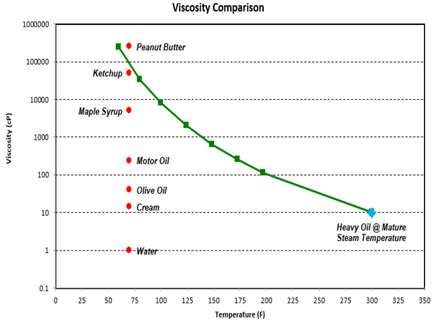


SEC 31

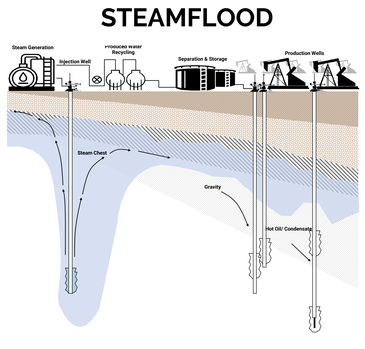


HILL TULARE

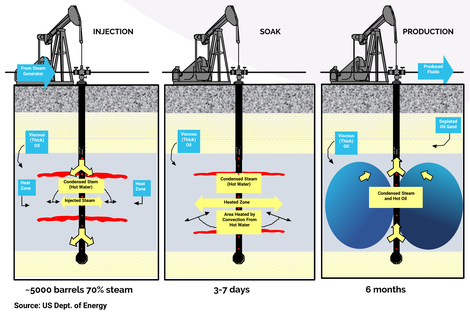
Poso Creek
Viscosity Comparison



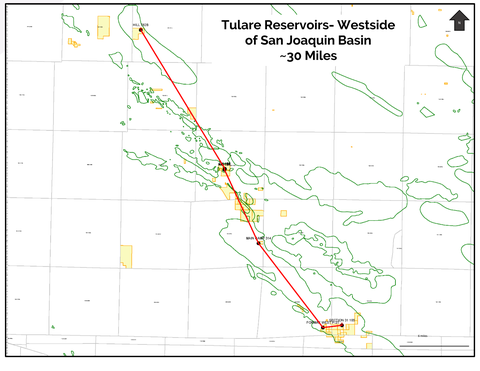
STEAMFLOOD



CYCLIC STEAM



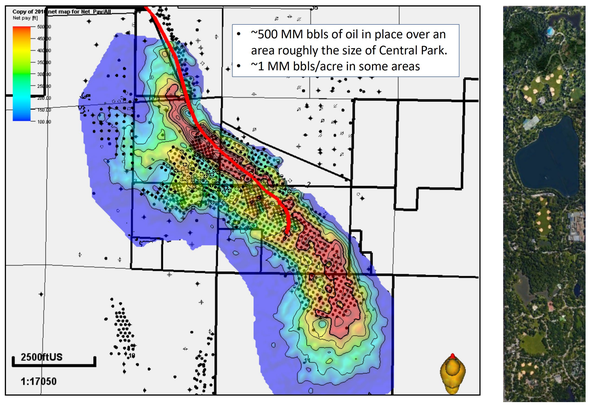
Source: US Dept. of Energy

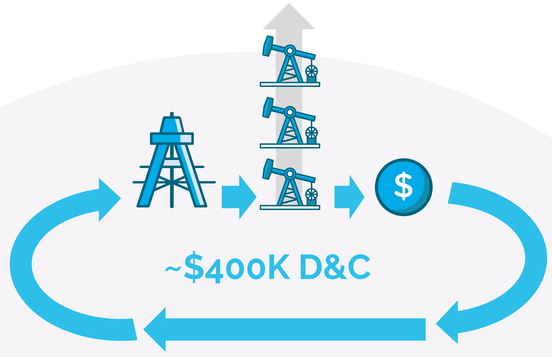


THERMAL DIATOMITE

Berry Petroleum Corporation

NET PAY MAP





Repeatable – Low Geologic and Drilling Risk

1 MM bbls/acre

Thermal Diatomite characteristics

	Diatomite	Sandstone
Permeability (md)	2	2000
Porosity	60-70%	30%
Peak Initial Oil Saturation	80%	80%

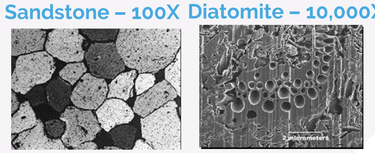
- Unique rock hold upwards of 70% fluid
- High oil density provides lots of opportunity
- Key focus is steam and increased permeability

Porosity	**2X greater**
Permeability (md)	**1000X lower**
So	**Equal**
Oil per unit volume	**2X greater**

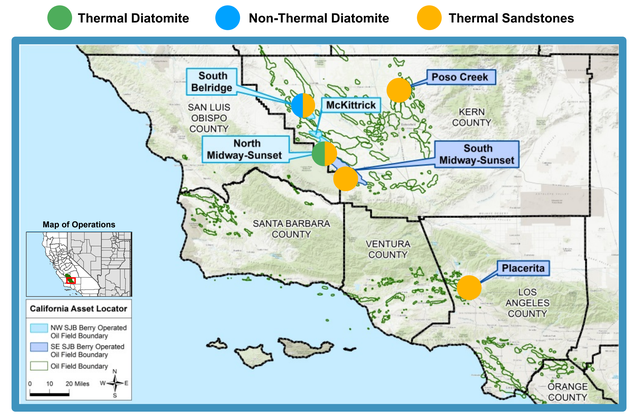
WELL DEPTHS

300' to 2,000'

Sandstone – 100X Diatomite – 10,000X

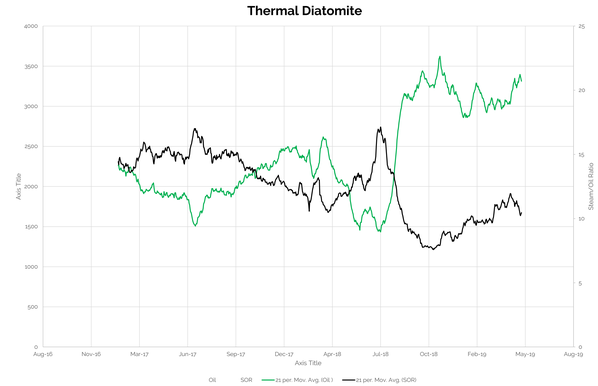


MAP OF OPERATIONS



EXCELLENT RESULTS

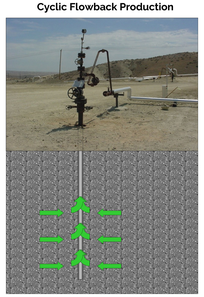
Production and SOR



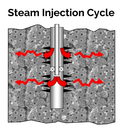
RECOVERY STRATEGY

CYCLIC STEAM PROCESS

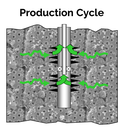
Cyclic Flowback Production

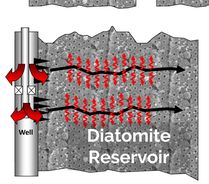


Steam Injection Cycle



Production Cycle

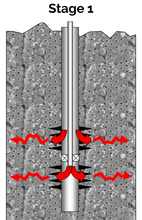




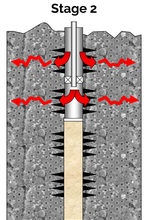
1. **Heat:** lower viscosity or "thickness" of the oil
2. **Stimulation:** steam stimulation contacts more reservoir
3. **Imbibition:** water and oil exchange place in the rock

OPTIMIZING WELLBORES THROUGH RECOMPLETIONS

Stage 1



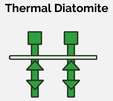
Stage 2



Recovery from base intervals

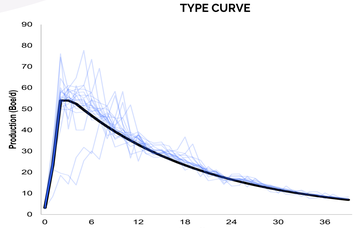
Recovery from upper intervals

Thermal Diatomite

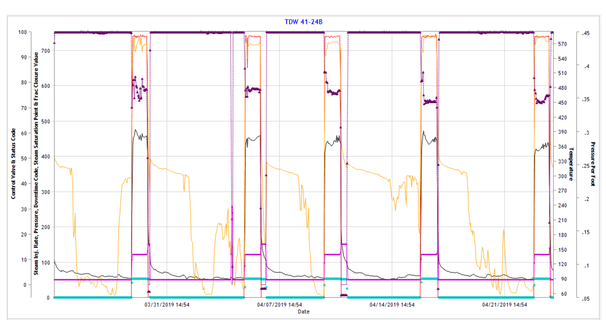


Well Type
Vertical
Completion type
Short Interval Perforations
Permits
UIC / Drilling / AE
Stimulation Type
Cyclic Steam

TYPE CURVE



RESERVOIR SURVEILLANCE TOOL - DISECT

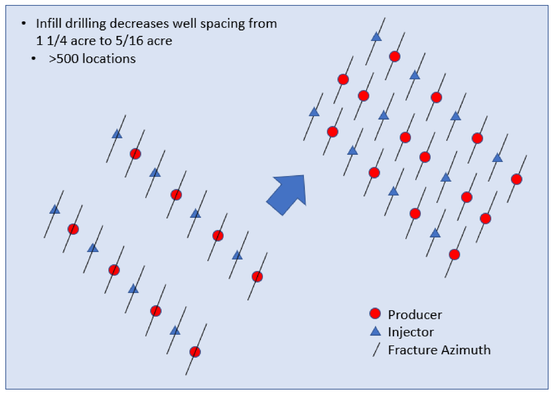


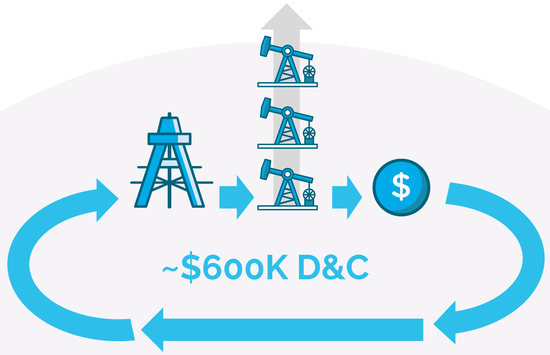
NON-THERMAL DIATOMITE

Berry Petroleum Corporation

HUNDREDS OF REPEATABLE LOCATIONS

- Infill drilling decreases well spacing from 1 1/4 acre to 5/16 acre
- >500 locations





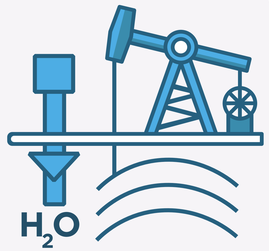
Repeatable – Low Geologic and Drilling Risk

500 Acres with 460 mmbo in place[1]

[1]Company Estimate

Non-Thermal Diatomite

- Large oil resource
- Under developed by others
  - Well down spacing
  - Hundreds of locations

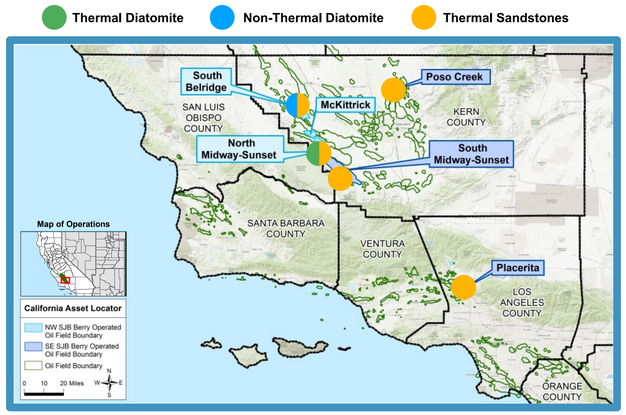


Simple, repeatable and quick

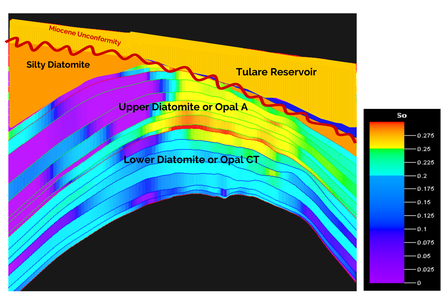
WELL DEPTHS

1,000' to 3,000'

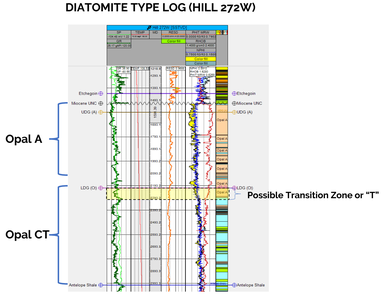
MAP OF OPERATIONS



CROSS-SECTION

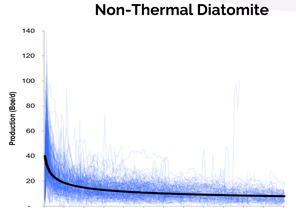


DIATOMITE TYPE LOG (HILL 272W)



TYPE CURVE

Non-Thermal Diatomite



Source: California DOGGR

Non-Thermal Diatomite
Hill Diatomite

Well Type Vertical
Completion type Low intensity hydraulic stimulation
Permits UIC / Drilling / AE/WST
Stimulation Type Waterflood

Berry California Well Stimulation

Typical Shale Stimulation

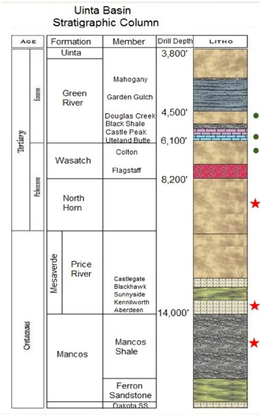
	Vertical	Well Orientation	Multiple times larger	Horizontal
	300,000 pounds	Sand	50x	15,000,000 pounds
	150,000 gallons	Fluid	100x	15,000,000 gallons
	Up to 4 pumps Up to 3,000 horsepower	Equipment	3-10x	Up to 25 pumps Up to 40,000 HP
	$600,000	D&C cost	10-20x	$5MM – $10MM

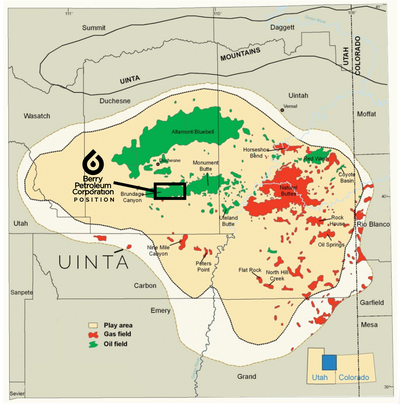
Sources: Berry Petroleum

Sources: Wells Fargo and Morgan Stanley industry reports

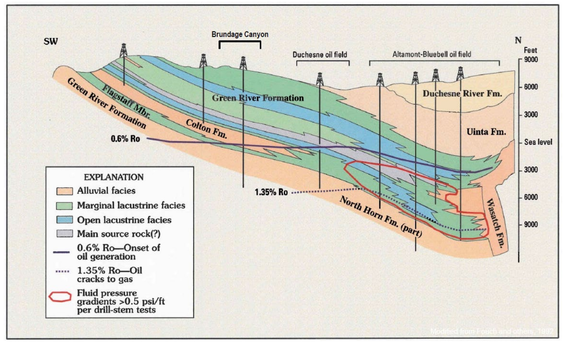
ROCKIES

UINTA LOCATION AND STRATIGRAPHY





REGIONAL GEOLOGY OVERVIEW



Productive members of the Lower Green River Formation include:

- ***Garden Gulch***
- ***Douglas Creek***
- ***Black Shale***
- ***Castle Peak***
- ***Uteland Butte***

Production from the Wasatch Formation is usually found within the upper 800'

Main Reservoirs consist of sandstones that were deposited in distributary channel and mouth bar environments resulting in a complex stratigraphic setting with multiple, vertically "stacked," lenticular beds

Secondary reservoir targets include carbonate beds within the Castle Peak and Uteland Butte Members

Added Valuable PUDs through 2018 drilling

2018 Drilling program delivered, setting the stage for future development.

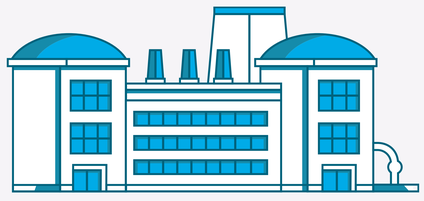
- Better than expected well performance
- Valuable reservoir data

38
New PUD Wells

90
Permits ready to drill

Takeaway capacity and pricing improving

8
Wells Drilled in 2018



PICEANCE GAS FACTORY

INFRASTRUCTURE IN PLACE FOR DEVELOPMENT

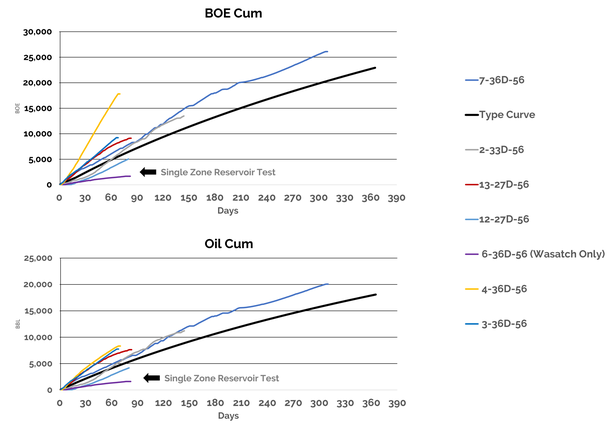
Gathering System

- **275 Miles low pressure poly lines**
- **6 compressor stations with plug in ability to triple capacity**
- **20 miles of high pressure steel line**

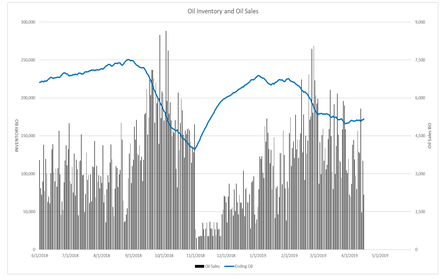
Processing

- **Berry owned and operated NGL refrigeration plant capable of double current capacity.**
- **Recovers Y-Grade product sent for third party fractionation**
- **Currently recovering 500 BPd**
- **14 MMcfd firm third party processing contract**
- **22 mile sales line in joint venture with Ute tribe**

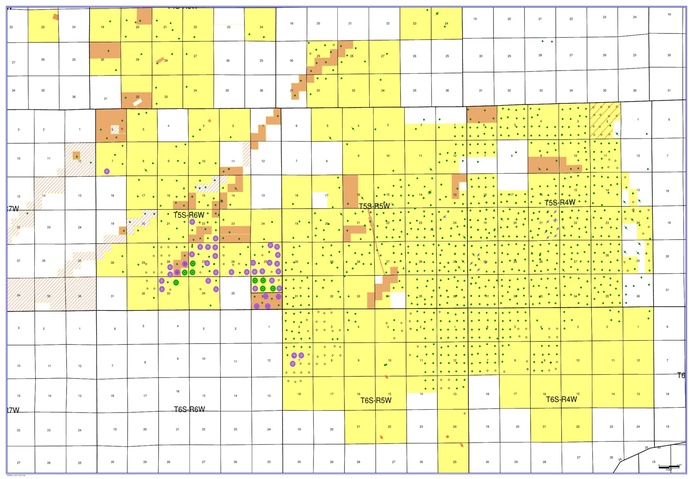
2018 SETTING STAGE FOR GROWTH

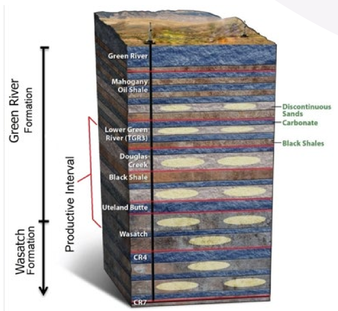


OIL MARKET IMPROVING



INVENTORY FOR CONTINUED DEVELOPMENT





YELLOW, BLACK, AND GREEN WAX

Lower Green River (Black wax)

- API gravity 35 Degrees, pour point of 90 degrees

Wasatch (Yellow Wax)

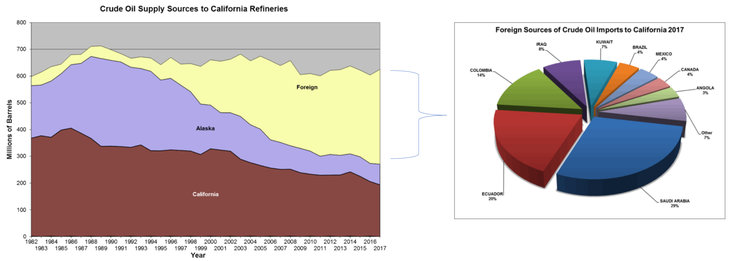
- API gravity 42 Degrees, pour point of 120 degrees

SAN JOAQUIN BASIN GEOLOGY

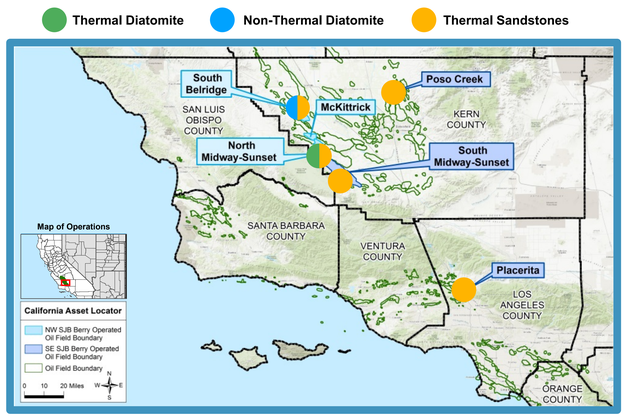
CONVENTIONAL FIELDS RESPOND TO INVESTMENT

Berry Petroleum Corporation

CALIFORNIA DEMAND AND OIL PRODUCTION HISTORY



MAP OF OPERATIONS

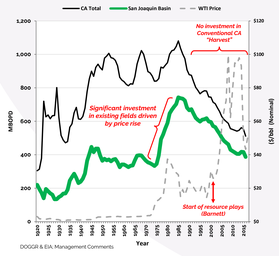


Why Is California a Great Place to Produce Oil?

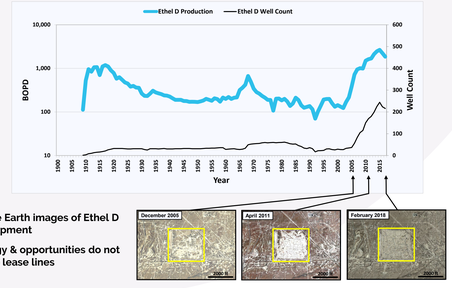
- World-class petroleum systems
- Abundant oil-prone, shallow, conventional opportunities
- Low risk & repeatable
- California economy - demand
- Brent pricing
- Stable cost structure
- Reservoirs respond to investment

Berry Is Positioned to Generate Value in CA

San Joaquin Basin Production History

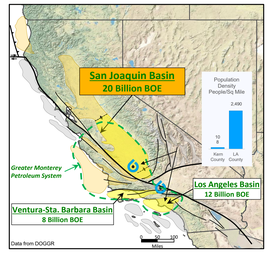


Berry's Ethel D Property: Creating Value in a 100+ year old field



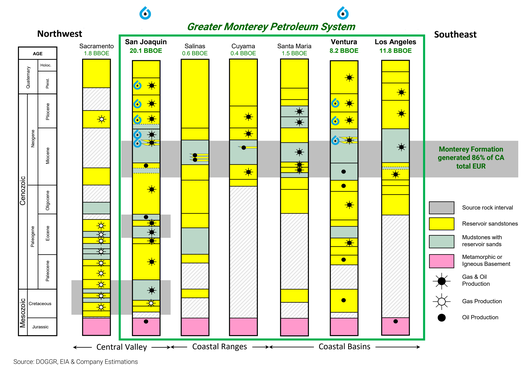
- Google Earth images of Ethel D development
- Geology & opportunities do not stop at lease lines

CALIFORNIA: A WORLD CLASS PETROLEUM PROVINCE

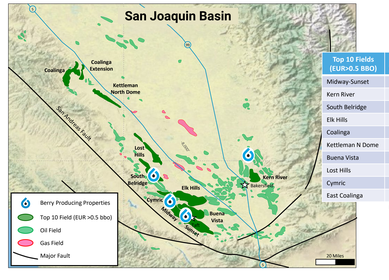


- **Strong technical fundamentals**
  - World-class, super-charged oil province
  - 44+ BBO discovered
  - 3 Super basins (EUR > 5 BBO)
  - San Joaquin – 45% of CA total EUR
- **Commercial Drivers**
  - CA is 5th largest economy – continued demand for product
  - Brent pricing
  - Basins respond to investment
- ***The Berry Advantage***
  - West side of San Joaquin Basin
  - Conventional oil play
  - Focus on development within established field boundaries

SCHEMATIC CROSS SECTION

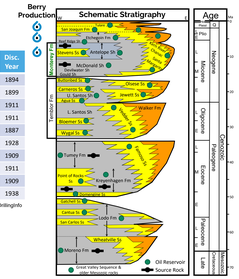


SAN JOAQUIN BASIN



Top 10 Fields (EUR>0.5 BBO)	EUR (BBOE)	Disc. Year
Midway-Sunset	3.6	1894
Kern River	2.6	1899
South Belridge	2.1	1911
Elk Hills	1.8	1911
Coalinga	1.1	1887
Kettleman N Dome	1.0	1928
Buena Vista	0.9	1909
Lost Hills	0.6	1911
Cymric	0.6	1909
East Coalinga	0.6	1938

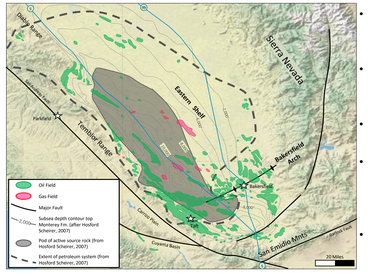
DOGGR & Drillinginfo



- **San Joaquin – a super-charged basin**
  - All zones produce
  - Multiple source rocks
- **Mature basin with significant remaining upside**
  - > 100 years of production history
  - Additional shallow and deep conventional opportunities
  - No significant industry investment in last 30+ years
- ***Berry's focus for growth***
  - Conventional opportunities
  - West-side within or close to existing fields
  - Shallow (generally < 3000 ft)
  - Low cost
  - Repeatable

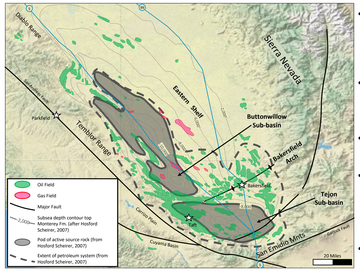
SAN JOAQUIN BASIN PETROLEUM SYSTEMS

Eocene (Kreyenhagen & Tumey Fms.) Petroleum Systems



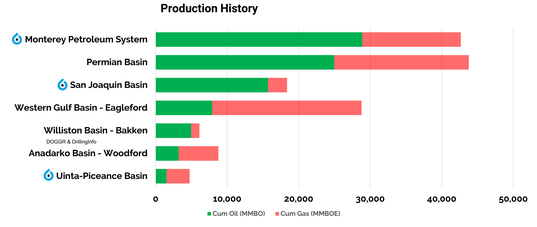
- **Depositional environ.**
  - Deepwater
  - Semi-confined forearc
- **Lithologies**
  - Bio-siliceous shales
  - Deep marine mudstones & sandstones
- **Thickness**
  - 400-800 ft
- **Source rock type**
  - Type II
  - TOC_0: 1.0-3.0 wt. %
  - HI_0: 100-450 mg/g TOC
- **Expulsion Timing**
  - Onset 5.5 ma (Pliocene)

Miocene Monterey Fm. Petroleum Systems



- **Depositional environ.**
  - Deepwater
  - Semi-confined basin along transform margin
- **Lithologies**
  - Bio-siliceous shales
  - Deep marine sandstones
- **Thickness**
  - 500-4,000 ft
- **Source rock type**
  - Type II
  - TOC_0: 2.0-4.5 wt. %
  - HI_0: 200-400 mg/g TOC
- **Expulsion Timing**
  - Onset 4.7 ma (Pliocene)

BERRY'S FOCUS ON 'CONVENTIONAL CALIFORNIA'



- Production history establishes Monterey petroleum system as a world-class petroleum province
- Conventional opportunities are abundant and accessible in the San Joaquin Basin
- Unconventional resource play revolution bypassed CA
- Oil-prone with favorable pricing
- Production will respond and grow with investment