

ITLUS Trip USA June 2016



Sincere
thanks
to Andy



ITLUS Trip USA June 2016

Energy

Soil

Rotation

Scale

Genetics

Resourcefulness of the people

Potential of the USA

Innovation & trends

Hospitality





Search Google Maps



ONTARIO

QUÉBEC

WASHINGTON

MONTANA

NORTH
DAKOTA

MINNESOTA

SOUTH
DAKOTA

WISCONSIN

OREGON

IDAHO

WYOMING

MAINE

NB

PE

NOVA SCOTIA

NEVADA

UTAH

COLORADO

United States

KANSAS

MISSOURI

San Francisco

CALIFORNIA

Las Vegas

Los Angeles

ARIZONA

NEW MEXICO

OKLAHOMA

ARKANSAS

TENNESSEE

San Diego

MISSISSIPPI

ALABAMA

TEXAS

LOUISIANA

Houston

FLORIDA

ITLUS Trip

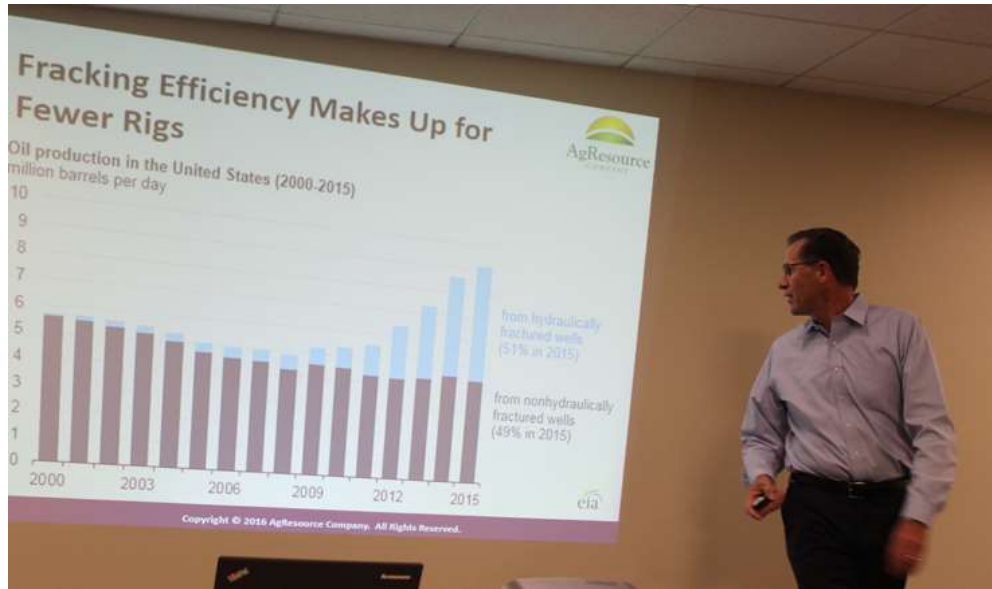
2000 miles by bus in excellent
comapny



Earth

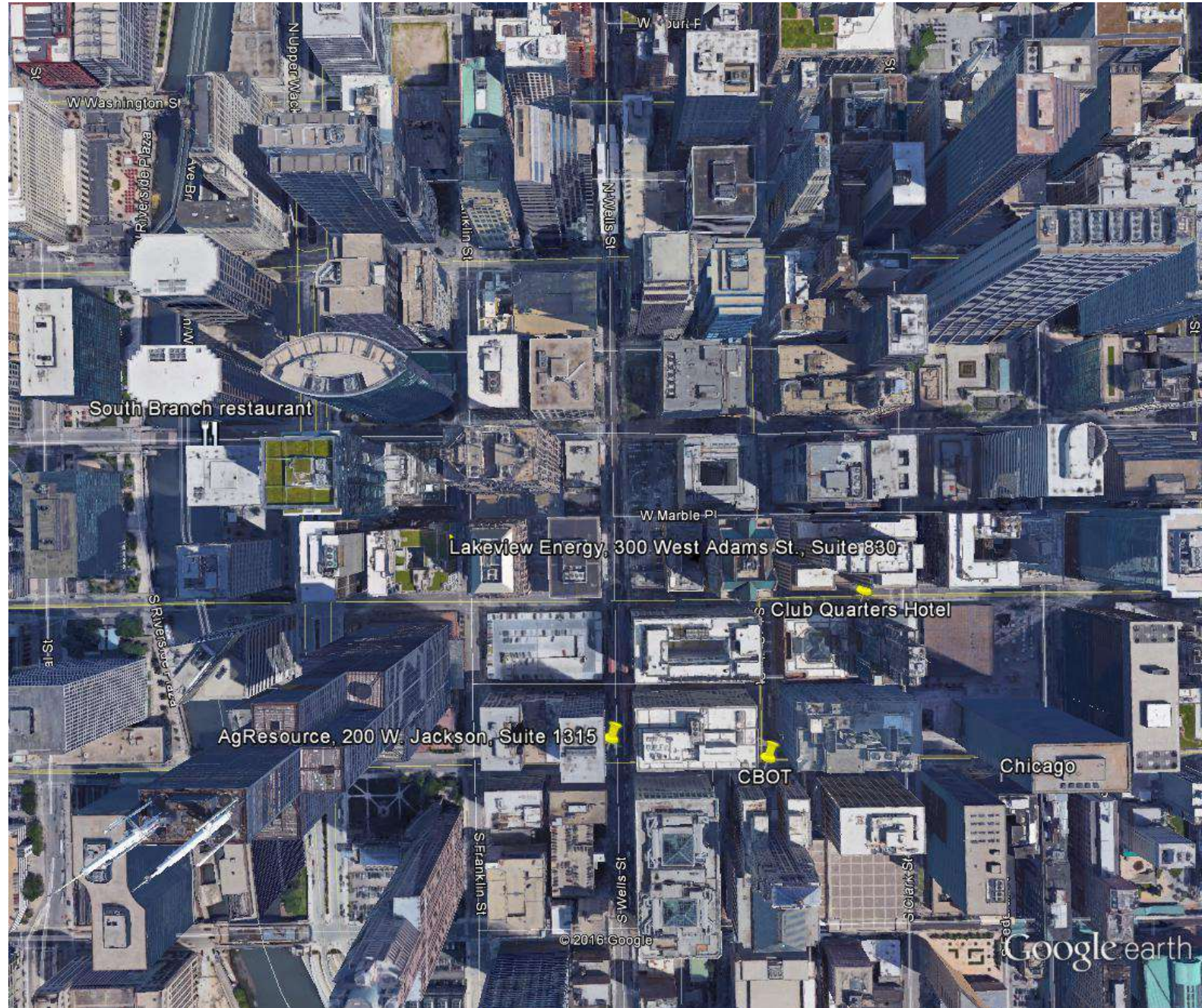
Google

Chicago in a day



Organisation

Hotel
CBOT
Federal Reserve
AgResource
Lakeview Energy
Mc Cann Foods (Sturm)



North Dakota

750,000 people, 4 times size Ireland

27 °C summer - ideal hay weather

- 15 °C winter - snow for 5 months
- S.wheat,
- Grassland (hay)
- Cattle/sucklers

Fracking

1980's first oil boom

1990 Bakken Oil Boom

Doubled population

Built schools and other public buildings

Welcomed by locals as kept community

Need \$100/barrel oil price to go 'boom'



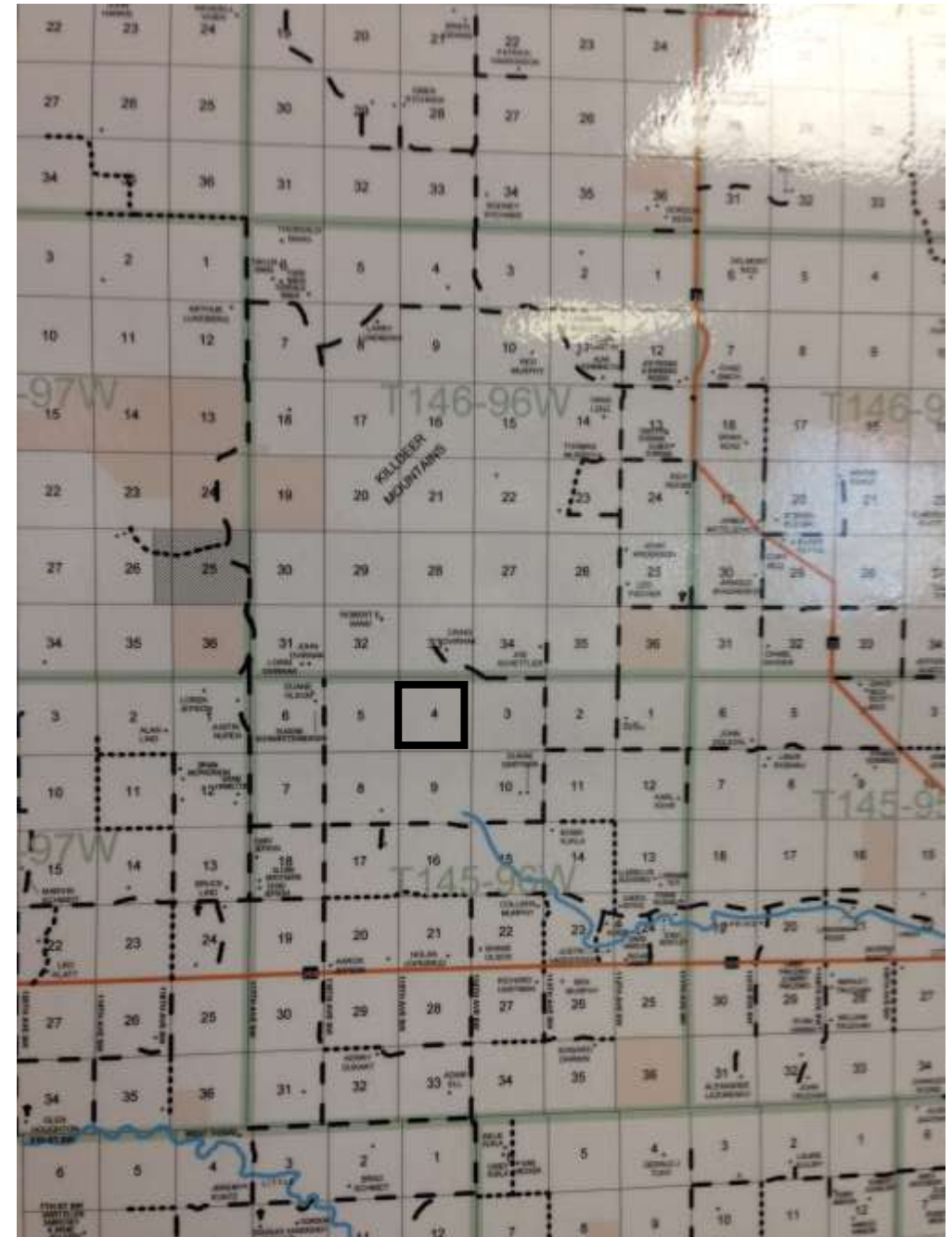
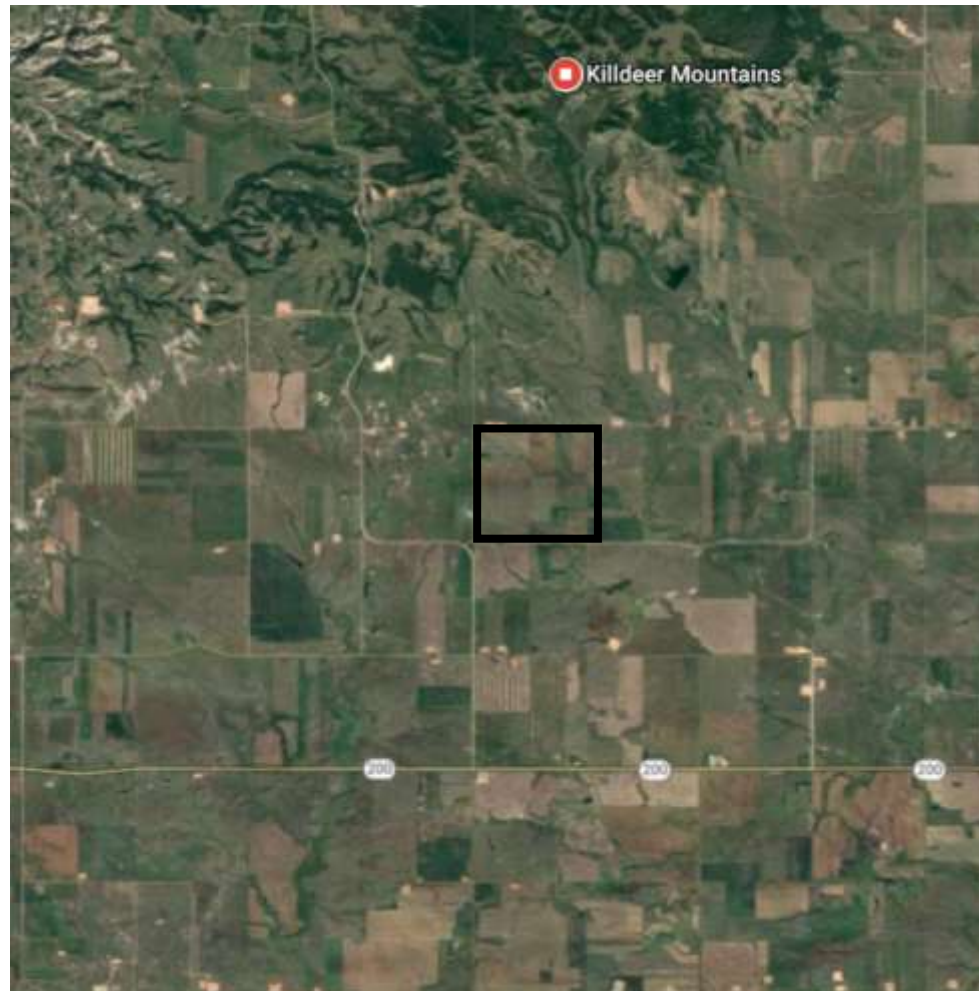
Land layout

1 mile square = 640 acres

Avg farm = 4 squares

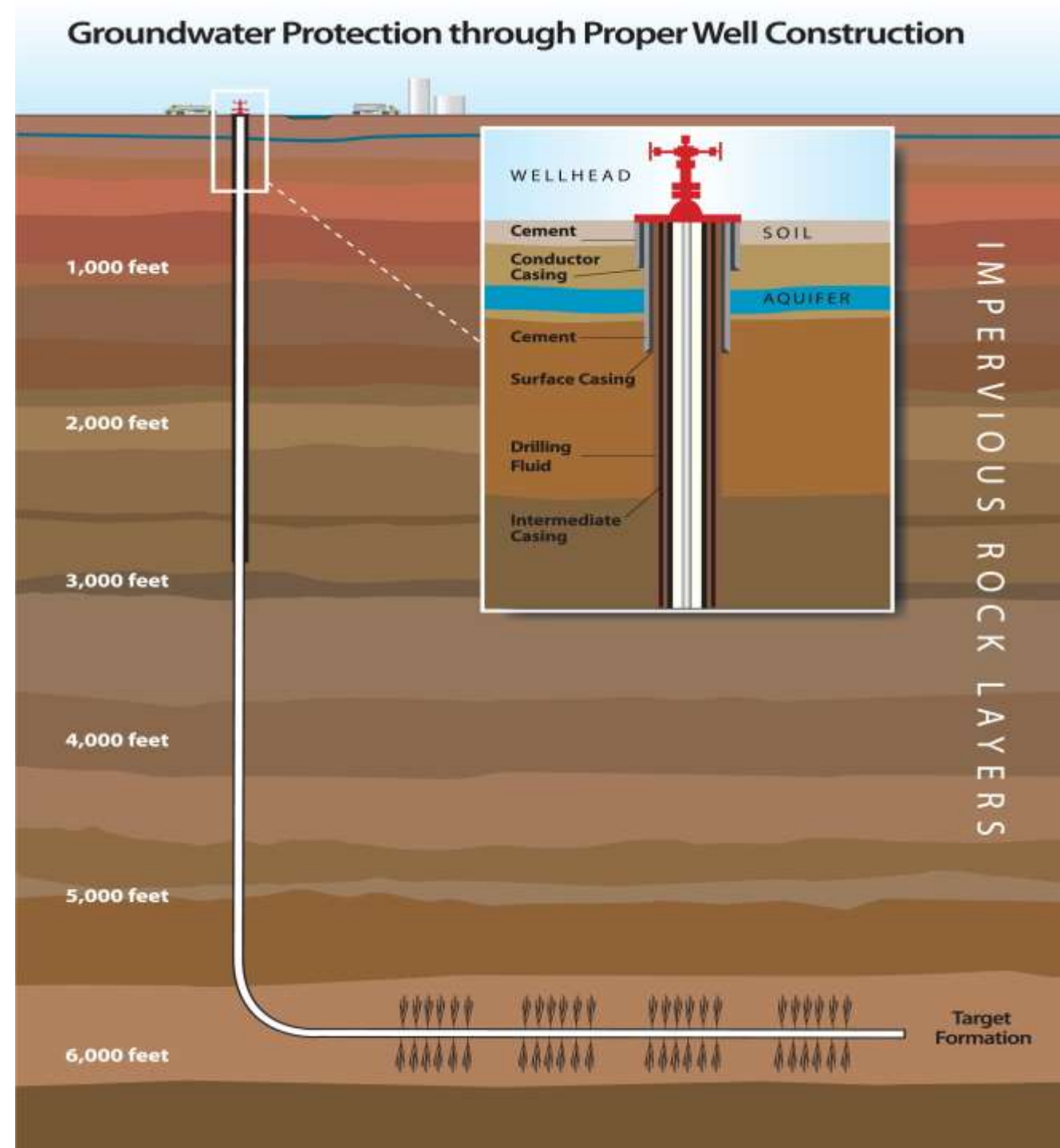
Avg farm = 4 squares

Avg farm = 4 squares



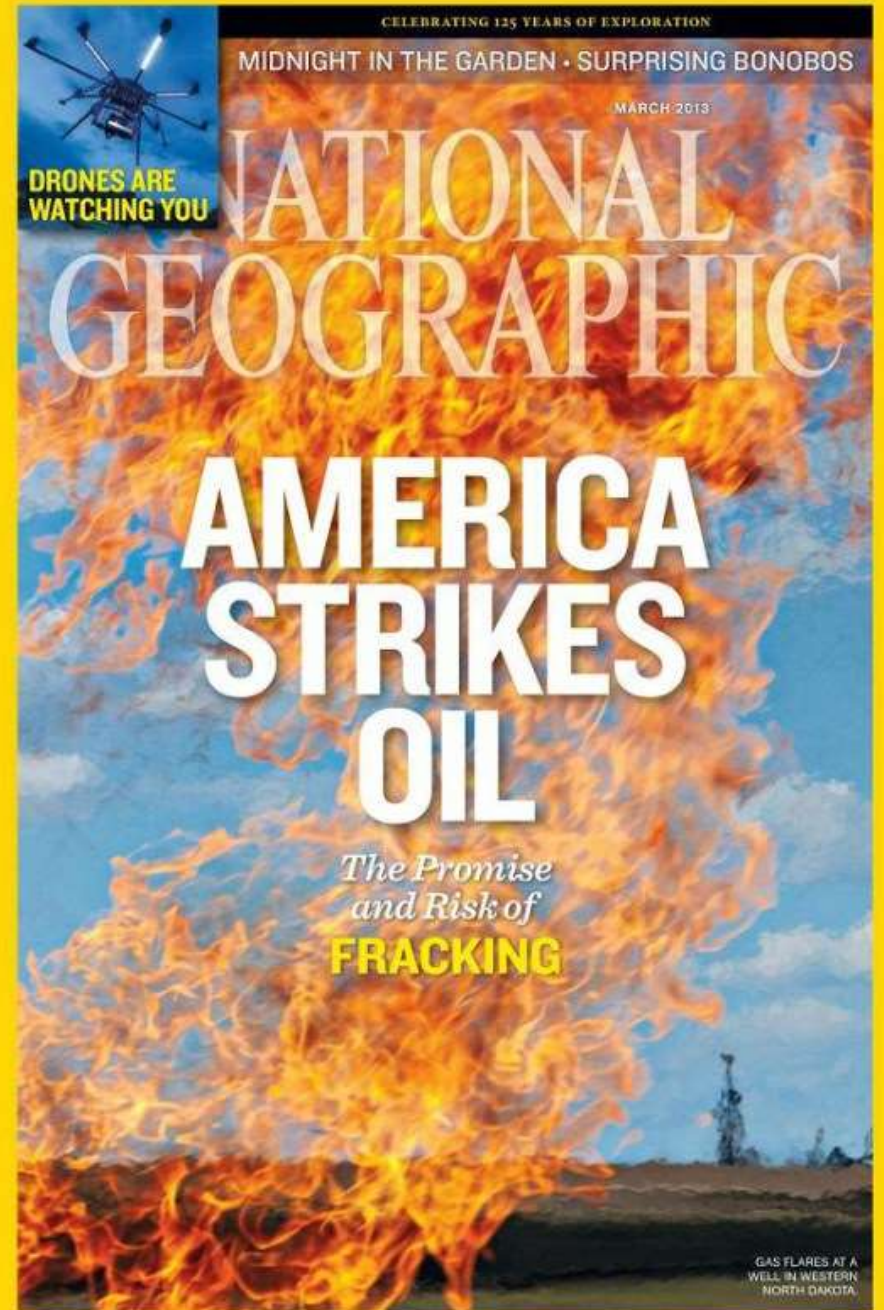
Fracking

- USA now net oil exporter
- Shale reserves
- 2 mile deep, 2 mile long
- 13000 wells but need 55,000
- Current technology can get at 5% of the oil/gas in the shale



Bakken S





Gasification
350 ton dumper
\$2 million model



IOWA & ILLINOIS



Soil – we need to take care of it



Rotations

South Dakota

Then:

Wheat:fallow:Wheat

Now:

15 crop rotation

An extra \$2 billion crop revenue from adapting zero-till, cover crops and wider rotations

Aim is to retain moisture

Also reduce GMO need



Soil/machinery/rotation/technology



Replacing irrigation with rotation





Soil fertility – South Dakota

65% use variable rate
fertiliser

GPS aided machines

Urea is big N source

Applied with drill in
autumn then drilled beside
the same run in spring



Genetics

- New technology will be game-changer
- Yeasts for ethanol – 35% increase
- Screening novel plants for genes
- 11 years classical breeding
- 4 years newer techniques
- RNAi/Crispr Cas9



Dairy Production





Beef units - Nebraska



Ethanol by-products feeding livestock expansion







Machinery adaption



Finances for US farmers



Crop Insurance

\$50/ac cost to farmer

\$100/ac paid by government

Returns 80% of crop revenue if
lost to weather, pest etc

Financing Options

Chattel mortgages

Resourcefulness of the people



Trends we saw



Hospitality



Sincere
thanks
to Andy

