#### Idaho Oil and Gas Conservation Commission **Open Meeting Checklist**

Meeting Date: May 14, 2025

#### **Regular Meetings**

Date	Action
04/29/25	Notice of Meeting posted in prominent place in Idaho Department of Lands
01/23/23	(IDL) Boise Director's office five (5) or more calendar days before meeting.
04/29/25	Notice of Meeting posted in prominent place in IDL Coeur d'Alene staff office five (5) or more calendar days before meeting.
04/29/25	Notice of Meeting posted in prominent place at meeting location five (5) or more calendar days before meeting.
04/29/25	Notice of Meeting published on <u>Townhall Idaho website</u> (https://townhall.idaho.gov) five (5) or more calendar days before meeting.
04/29/25	Notice of Meeting emailed/faxed to list of media and interested citizens who have requested such notice five (5) or more calendar days before meeting.
04/29/25	Notice of Meeting posted electronically on the OGCC website (https://ogcc.idaho.gov/) five (5) or more calendar days before meeting.
05/09/25	Agenda posted in prominent place in IDL Boise Director's office forty-eight (48) hours before meeting.
05/09/25	Agenda posted in prominent place in IDL Coeur d'Alene staff office forty- eight (48) hours before meeting.
05/09/25	Agenda posted in prominent place at meeting location forty-eight (48) hours before meeting.
05/09/25	Agenda published on <u>Townhall Idaho website</u> (https://townhall.idaho.gov) forty-eight (48) hours before meeting.
05/09/25	Agenda emailed/faxed to list of media and interested citizens who have requested such notice forty-eight (48) hours before meeting.
05/09/25	Agenda posted electronically on the <u>OGCC website</u> (https://ogcc.idaho.gov/) forty-eight (48) hours before meeting.
12/09/24	Annual meeting schedule posted – Boise Director's Office, Coeur d'Alene Staff Office, and <u>OGCC website</u> (https://ogcc.idaho.gov/)
03/13/25	Revised annual meeting schedule posted – Boise Director's Office, Coeur d'Alene Staff Office, and <u>OGCC website</u> (https://ogcc.idaho.gov/)

#### Certification

Kowhey Romie Recording Secretary

05/09/2025

Date

#### Idaho Oil and Gas Conservation Commission



Ray Hinchcliff, Chair Jennifer Riebe, Vice Chair Margaret Chipman, Commissioner Marc Haws, Commissioner Mike Lyden, Commissioner

Shannon Chollett, Secretary to the Commission

## Notice of Public Meeting May 2025

The Idaho Oil and Gas Conservation Commission will hold a Regular Meeting on Wednesday, May 14, 2025, at the State Capitol, House Hearing Room, (EW42), Lower Level, East Wing, 700 W Jefferson Street, Boise. The meeting is scheduled to begin at 1:30 pm (MT).

Please note meeting location.

The Oil and Gas Conservation Commission will conduct this meeting in person and by virtual means. This meeting is open to the public. No public comment will be taken.

Meeting will be streamed live via IPTV: https://www.idahoptv.org/shows/idahoinsession/

First Notice Posted: 04/29/2025-IDL Boise; 04/29/2025-IDL CDA

The Idaho Oil and Gas Conservation Commission is established by Idaho Code § 47-314.

Idaho Department of Lands, 300 N 6th Street, Suite 103, Boise ID 83702

This notice is published pursuant to § 74-204 Idaho Code. For additional information regarding Idaho's Open Meeting law, please see Idaho Code §§ 74-201 through 74-208.

#### Idaho Oil and Gas Conservation Commission



Ray Hinchcliff, Chair Jennifer Riebe, Vice Chair Margaret Chipman, Commissioner Marc Haws, Commissioner Michael Lyden, Commissioner

Shannon Chollett, Secretary to the Commission

### **Final Agenda**

Idaho Oil and Gas Conservation Commission Regular Meeting May 14, 2025 – 1:30 PM (MT) State Capitol, House Hearing Room, (EW42), Lower Level, East Wing, 700 W Jefferson Street, Boise

The Oil and Gas Conservation Commission will conduct this meeting in person and by virtual means. This meeting is open to the public. No public comment will be taken.

<u>Meeting will be streamed live via IPTV</u>: https://www.idahoptv.org/shows/idahoinsession/

#### Announcements

Introduction of new Commissioner Mike Lyden.

#### Reports

- 1. Department Report Presented by Shannon Chollett, Division Administrator
  - A. Financial Update
  - B. Current Oil and Gas Activity

#### **Consent – Action Item(s)**

2. Approval of Minutes – February 18, 2025 – Regular Meeting (Boise)

#### Information

- 3. IDAPA 20.07.02 Rules Governing Conservation of Oil & Natural Gas in the State of Idaho: Pending Rule before the 2025 Legislature *Presented by James Thum, Oil & Gas Program Manager*
- 4. An Overview of Idaho's Western Snake River Plain Petroleum System and Its Hydrocarbon Potential – *Presented by Mark Barton, Petroleum Geologist, Idaho Geological Survey*

#### Regular – Action Item(s)

None

#### Executive

None

This agenda is published pursuant to § 74-204 Idaho Code. The agenda is subject to change by the Commission. To arrange auxiliary aides or services for persons with disabilities, please contact Dept. of Lands at (208) 334-0242. Accommodation requests for auxiliary aides or services must be made no less than five (5) working days in advance of the meeting. Agenda materials may be requested by submitting a Public Records Request at the <u>Idaho Department</u> <u>of Lands Contact Us</u> webpage: https://www.idl.idaho.gov/contact-us/



### 👍 Idaho Statutes

Idaho Statutes are updated to the web July 1 following the legislative session.

#### TITLE 74

TRANSPARENT AND ETHICAL GOVERNMENT

#### CHAPTER 2

#### OPEN MEETINGS LAW

74-206. EXECUTIVE SESSIONS - WHEN AUTHORIZED. (1) An executive session at which members of the public are excluded may be held, but only for the purposes and only in the manner set forth in this section. The motion to go into executive session shall identify the specific subsections of this section that authorize the executive session. There shall be a roll call vote on the motion and the vote shall be recorded in the minutes. An executive session shall be authorized by a two-thirds (2/3) vote of the governing body. An executive session may be held:

(a) To consider hiring a public officer, employee, staff member or individual agent, wherein the respective qualities of individuals are to be evaluated in order to fill a particular vacancy or need. This paragraph does not apply to filling a vacancy in an elective office or deliberations about staffing needs in general;

(b) To consider the evaluation, dismissal or disciplining of, or to hear complaints or charges brought against, a public officer, employee, staff member or individual agent, or public school student;

(c) To acquire an interest in real property not owned by a public agency;

(d) To consider records that are exempt from disclosure as provided in chapter 1, title 74, Idaho Code;

(e) To consider preliminary negotiations involving matters of trade or commerce in which the governing body is in competition with governing bodies in other states or nations;

(f) To communicate with legal counsel for the public agency to discuss the legal ramifications of and legal options for pending litigation, or controversies not yet being litigated but imminently likely to be litigated. The mere presence of legal counsel at an executive session does not satisfy this requirement;

(g) By the commission of pardons and parole, as provided by law;

(h) By the custody review board of the Idaho department of juvenile corrections, as provided by law;

(i) To engage in communications with a representative of the public agency's risk manager or insurance provider to discuss the adjustment of a pending claim or prevention of a claim imminently likely to be filed. The mere presence of a representative of the public agency's risk manager or insurance provider at an executive session does not satisfy this requirement; or

(j) To consider labor contract matters authorized under section 74-206A (1)(a) and (b), Idaho Code.

(2) The exceptions to the general policy in favor of open meetings stated in this section shall be narrowly construed. It shall be a violation of this chapter to change the subject within the executive session to one not identified within the motion to enter the executive session or to any topic for which an executive session is not provided.

(3) No executive session may be held for the purpose of taking any final action or making any final decision.

(4) If the governing board of a public school district, charter district, or public charter school has vacancies such that fewer than two-thirds (2/3) of board members have been seated, then the board may enter into executive session on a simple roll call majority vote. History:

[74-206, added 2015, ch. 140, sec. 5, p. 371; am. 2015, ch. 271, sec. 1, p. 1125; am. 2018, ch. 169, sec. 25, p. 377; am. 2019, ch. 114, sec. 1, p. 439.]

How current is this law?

#### Search the Idaho Statutes and Constitution

#### Oil and Gas Regulatory Program Activities Report as of February, 2025 Fund 16614 Oil and Gas Conservation Fund Cash Flow Report

		Current Month	Year-to-Date
Beginning Cash Balance 7/1/2024	839,276.50		
Permits		0.00	1,300.00
*Severance Tax		0.00	28,151.22
Refund (previous year)		0.00	0.00
Other Revenue		0.00	0.00
Other (transfer to GF)		0.00	0.00
Total	0.00	29,451.22	
Personnel Expenditures		(7,647.10)	(77,751.97)
Operating Expenditures		(41.49)	(1,497.72)
Capital Outlay Expenditures		0.00	0.00
Interagency Liability to be paid		0.00	571.15
P-Card Liability to be paid		0.00	0.00
Total		(7,688.59)	(78,678.54)
Ending Cash Balance 02/28/2025	Revenue (transfer to GF) Total nnel Expenditures al Outlay Expenditures gency Liability to be paid d Liability to be paid Total		790,049.18

\*The Idaho Tax Commission transfers 60% of the 2.5% Severance Tax to Fund 16614 Oil and Gas Conservation Fund to defray the expense of the Oil and Gas Commission.

#### **General Fund Regulatory Program Expenditures Report**

#### **Expenditures from General Fund FY25**

Expenses	Allocation	Current Month	Year-to-Date	Balance
PC	227,600.00	16,282.06	148,764.54	78,835.46
OE	81,300.00	12,626.15	44,254.17	37,045.83
СО	0.00	0.00	0.00	0.00
Total	308,900.00	28,908.21	193,018.71	115,881.29

#### **Dedicated Fund Regulatory Program Expenditures Report**

	Expenditures from Dedicated Fund FY25											
_			Mara In Dala									
Expenses	Allocation	Current Month	Year-to-Date	Balance								
PC	154,900.00	7,647.10	77,751.97	77,148.03								
OE	58,600.00	41.49	1,497.72	57,102.28								
СО	0.00	0.00	0.00	0.00								
Tot	al 213,500.00	7,688.59	79,249.69	134,250.31								

#### Oil and Gas Regulatory Program Activities Report as of March, 2025 Fund 16614 Oil and Gas Conservation Fund Cash Flow Report

<b>Beginning Cash Balance 7/1/2024</b> Permits *Severance Tax	839,276.50	Current Month 0.00 37,661.04	Year-to-Date 1,300.00 65,812.26
Refund (previous year)		0.00	0.00
Other Revenue		0.00	0.00
Other (transfer to GF)		0.00	0.00
Total		37,661.04	67,112.26
Personnel Expenditures Operating Expenditures Capital Outlay Expenditures Interagency Liability to be paid P-Card Liability to be paid <b>Total</b>		(8,282.05) (356.37) 0.00 0.00 (8,638.42)	(86,034.02) (1,854.09) 0.00 571.15 0.00 (87,316.96)
Ending Cash Balance 03/31/2025			819,071.80

\*The Idaho Tax Commission transfers 60% of the 2.5% Severance Tax to Fund 16614 Oil and Gas Conservation Fund to defray the expense of the Oil and Gas Commission.

#### **General Fund Regulatory Program Expenditures Report**

#### **Expenditures from General Fund FY25**

Expenses	Allocation	Current Month	Year-to-Date	Balance
PC	227,600.00	17,614.74	166,379.28	61,220.72
OE	81,300.00	4,385.90	48,640.07	32,659.93
СО	81,300.00 0.00		0.00	0.00
Total	308,900.00	22,000.64	215,019.35	93,880.65

#### **Dedicated Fund Regulatory Program Expenditures Report**

	Expenditures fro	m Dedicated Fun	d FY25	
Expenses	Allocation	Current Month	Year-to-Date	Balance
PC	154,900.00	8,282.05	86,034.02	68,865.98
OE	58,600.00	356.37	1,854.09	56,745.91
CO	0.00	0.00	0.00	0.00
Tota	213,500.00	8,638.42	87,888.11	125,611.89

### WESTERN SNAKE RIVER BASIN (WSRB) – WELL STATUS

No.	US Well Number	Operator	Operator Well Name							
1	11-075-20011	Snake River O&G	Tracy Trust #3-2	Shut in; pending P&A						
2	11-075-20020	Snake River O&G	DJS Properties #1-15	Shut in						
3	11-075-20022	Snake River O&G	ML Investments #2-10	Shut in						
4	11-075-20023	Snake River O&G	DJS Properties #2-14	Shut in (Class II UIC)						
5	11-075-20024	Snake River O&G	Kauffman #1-34	P&A						
6	11-075-20025	Snake River O&G	ML Investments #1-11	Inactive /Shut in						
7	11-075-20026	Snake River O&G	ML Investments #1-3	Shut in						
8	11-075-20027	Snake River O&G	Kauffman #1-9	P&A						
9	11-075-20029	Snake River O&G	ML Investments #2-3	Shut in						
10	11-075-20031	Snake River O&G	ML Investments #3-10	Shut in						
11	11-075-20032	Snake River O&G	Fallon #1-10	Producing						
12	11-075-20033	Snake River O&G	Barlow #1-14	Producing						
13	11-075-20036	Snake River O&G	Barlow #2-14	Producing						
14	11-075-20037	Snake River O&G	Fallon #1-11	Producing						
15	11-075-20038	Snake River O&G	Dutch-Lane #1-13	Producing						
16	11-075-20039	Snake River O&G	Irvin #1-19	Producing						
17	11-075-20040	Snake River O&G	Barlow #3-14	Shut in						





В

AVERAGE DAILY PRODUCTION – JANUARY 1 THROUGH MARCH 31, 2025:8.3 MMCFGD(MILLION CUBIC FEET OF GAS PER DAY)99 BCD(BARRELS OF CONDENSATE PER DAY)

43 BWD 4,344 GAL NGLs PER DAY

(BARRELS OF CONDENSATE PER DAY) (BARRELS OF WATER PER DAY) (PLANT VOLUME)

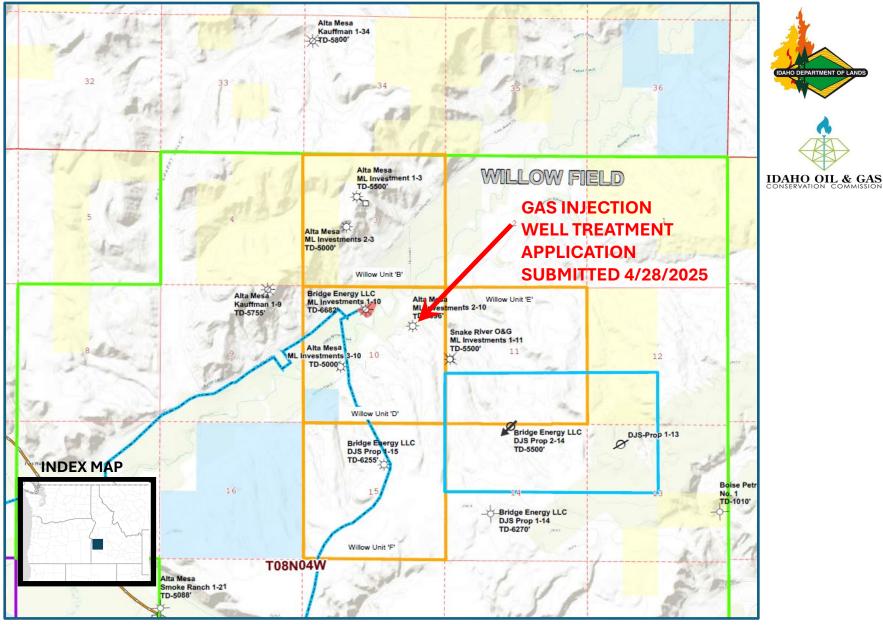


### WESTERN SNAKE RIVER BASIN (WSRB) – WELL STATUS

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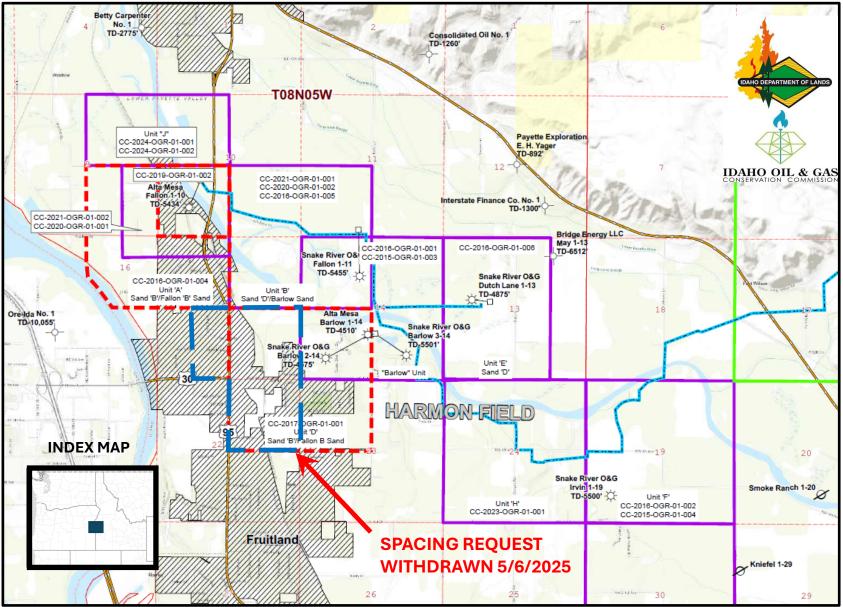
Source: <a href="https://ogcc.idaho.gov/maps/">https://ogcc.idaho.gov/maps/</a> Oil & Gas Activity Maps – Southwest Idaho

### WESTERN SNAKE RIVER BASIN (WSRB) – WILLOW FIELD AREA



Source: <a href="https://ogcc.idaho.gov/maps/">https://ogcc.idaho.gov/maps/</a> Southwest Idaho Unit Map (updated February 4, 2025)

### WESTERN SNAKE RIVER BASIN (WSRB) – HARMON FIELD AREA



Source: https://ogcc.idaho.gov/maps/ Southwest Idaho Unit Map February 4, 2025, modified May 9, 2025



Idaho Oil and Gas Conservation Commission

Ray Hinchcliff, Chair Jennifer Riebe, Vice Chair Margaret Chipman, Commissioner Marc Haws, Commissioner

Shannon Chollett, Secretary to the Commission

### **Draft Minutes**

Idaho Oil and Gas Conservation Commission Regular Meeting February 18, 2025

The regular meeting of the Idaho Oil and Gas Conservation Commission was held on Tuesday, February 18, 2025, at the Boise City Council Chambers, Boise City Hall, 3rd Floor, 150 N. Capitol Blvd., Boise, Idaho. The meeting began at 1:30 p.m. (MT). Chairman Ray Hinchcliff presided. The following members were present:

Vice Chairman Jennifer Riebe Commissioner Margaret Chipman

For the record, a quorum was in attendance; all three Commissioners were present at the physical location.

#### Announcements

Chairman Hinchcliff thanked Commissioners Riebe and Chipman for being at the meeting and excused Commissioner Haws who was unable to attend today. He also noted that no public comments would be accepted in this meeting.

#### Reports

- 1. Department Report Presented by Shannon Chollett, Division Administrator
  - A. Financial Update
  - B. Current Oil and Gas Activity

There were no questions on the reports.

#### **Consent – Action Item(s)**

2. Approval of Minutes – October 2, 2024 – Regular Meeting (Boise)

*COMMISSION ACTION*: A motion was made by Commissioner Chipman that the Commission approve the meeting minutes. Commissioner Riebe seconded the motion. The motion carried on a vote of 3-0.

Background information was provided by the presenter indicated below. No Commission action is required on the Information Agenda.

#### Information

- 3. Update on IDAPA 20.07.02 rules before the 2025 legislature *Presented by James Thum, Oil & Gas Program Manager*
- 4. Presentation: Natural Gas Markets in the Pacific Northwest Presented by Randy Schultz, IGI Resources, Inc

#### Regular – Action Item(s)

None

#### Executive

None

There being no further business before the Commission, at 2:12 p.m. a motion to adjourn was made by Commissioner Chipman. Commissioner Riebe seconded the motion. The motion carried on a vote of 3-0. Meeting adjourned.



Idaho Oil and Gas Conservation Commission

May 14, 2025 Information Agenda

#### Subject

IDAPA 20.07.02, *Rules Governing Conservation of Oil and Natural Gas in the State of Idaho* – Pending Rule before the 2025 Legislature

#### Background

The Idaho Department of Lands (Department) administers these rules under the authority of the Oil and Gas Conservation Act (Title 47 Chapter 3, Idaho Code). These rules apply to the extraction of any and all crude oil and natural gas resources in the state of Idaho, not including biogas, manufactured gas, or landfill gas, regardless of ownership.

Following Executive Order 2020-01, Zero-Based Regulation, this rule chapter was scheduled for a comprehensive review in 2024. At the November 14, 2023, Oil and Gas Conservation Commission (Commission) meeting, the Commission authorized the Department to initiate negotiated rulemaking. Negotiated Rulemaking took place in three separate meetings during April 2024, and additional comments were accepted at the May 21, 2024 Commission regular meeting. Negotiated Rulemaking concluded on May 31, 2024.

A Notice of Proposed Rule was published in the August 2024 Administrative Bulletin and a public hearing on the proposed rule was held in Boise on August 15, 2024. No oral or written comments were received by the August 28, 2024 deadline.

The pending rule was presented to the Commission as a regular agenda item at the October 2, 2024 meeting with a recommendation to adopt the pending rule. The Commission voted unanimously to adopt the pending rule. The pending rule was published in the December 2024 Administrative Bulletin for the 2025 legislative session.

#### Discussion

The Department will provide a summary of the House and Senate committee presentations and the status of the pending rule. This will be the final update for the 2024 Negotiated Rulemaking for IDAPA 20.07.02. The Department will also discuss Senate Bill 1146 which modifies the background requirements for members of the Commission, and the timelines and requirements for House Bill 14, the Idaho Code Cleanup legislation.

Idaho Oil and Gas Conservation Commission

May 14, 2025 Information Agenda

#### Subject

Presentation: An Overview of Idaho's Western Snake River Plain Petroleum System and Its Hydrocarbon Potential

#### Background

In March 2010, Bridge Energy drilled the ML Investments #1-10 well in Payette County resulting in the first commercial hydrocarbon discovery in the state of Idaho. This discovery led to additional development drilling by Alta Mesa to confirm the extent of what was to become the Willow Field. Gas gathering and processing facilities were constructed and full time production commenced in August 2015.

Three years later in 2018, Alta Mesa drilled the Barlow #1-14 well near Fruitland which was the discovery well for the Harmon Field. This was followed by the Fallon #1-10 confirmation well on the northwest side of the Harmon Field.

In February 2020, Mark Barton, petroleum geologist at the Idaho Geological Survey, presented a summary of the production that had occurred in the field to the Idaho Oil and Gas Conservation Commission.

#### Discussion

Since 2020, Willow Field development drilling has ceased and production has declined in the field. During that same time, additional development wells have been drilled in the Harmon Field resulting in a shift of activity to the west of the initial discovery. Dr. Barton will be presenting an update on his continued studies of the production in the Western Snake River Plain, with an assessment of the additional exploration and production potential which may remain in the basin.

#### Attachment

1. Presentation – Idaho's Western Snake River Plain Petroleum System and Its Hydrocarbon Potential by Mark Barton, Idaho Geological Survey

## Idaho's Western Snake River Plain Petroleum System and Its Hydrocarbon Potential

## Idaho Oil and Gas Commission Presentation May 14, 2025

Mark Barton Idaho Geological Survey



Miocene igneous intrusion-WSRP, Idaho

# AGENDA

## IGS Oil & Gas Program

## **Petroleum System Basics**

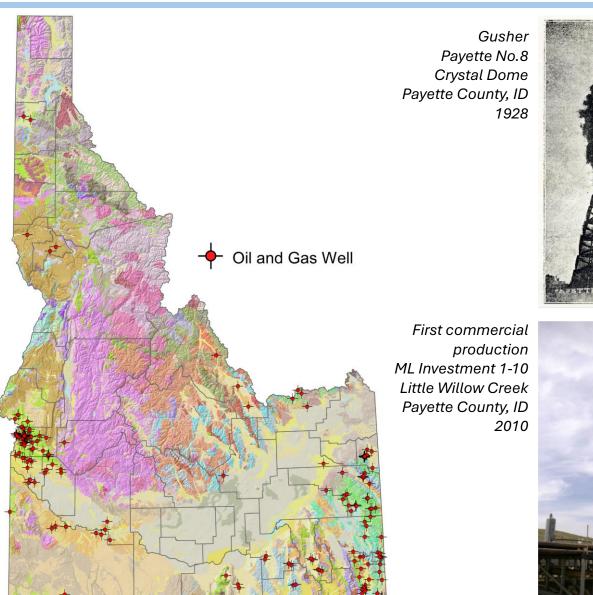
- o Conventional
- o Atypical Igneous

## WSRP Petroleum System

- $\circ \ \ \text{Hydrocarbon plays}$ 
  - Willow, Harmon, Hamilton
- $\circ$  Producing fields
  - Willow
  - Harmon

## **Opportunities/Challenges**

- o Hamilton Play
- o Harmon Play
- Willow Play
- o Southern Basin







# IGS Oil and Gas Program

### Activities

- Conducting research on proven and potential petroleum systems in the state of Idaho.
  - o Basin analysis
  - o Reservoir presence and effectiveness
  - o Source rock potential
  - o Geochemistry of gas and fluids
- Collecting and archiving subsurface geological data.
- Transferring knowledge to operators, policymakers, and the public.

### Focus Areas

### Western Snake River Plain (proven)

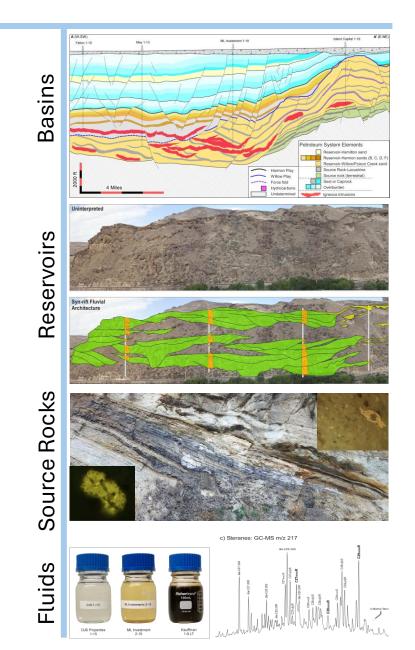
• Conventional petroleum system in the early stages of exploration and development.

### South-central Idaho (speculative)

• Possible petroleum system based on reports of oil seeps within Permian age strata exposed on the flanks of the Cassia Mountains.

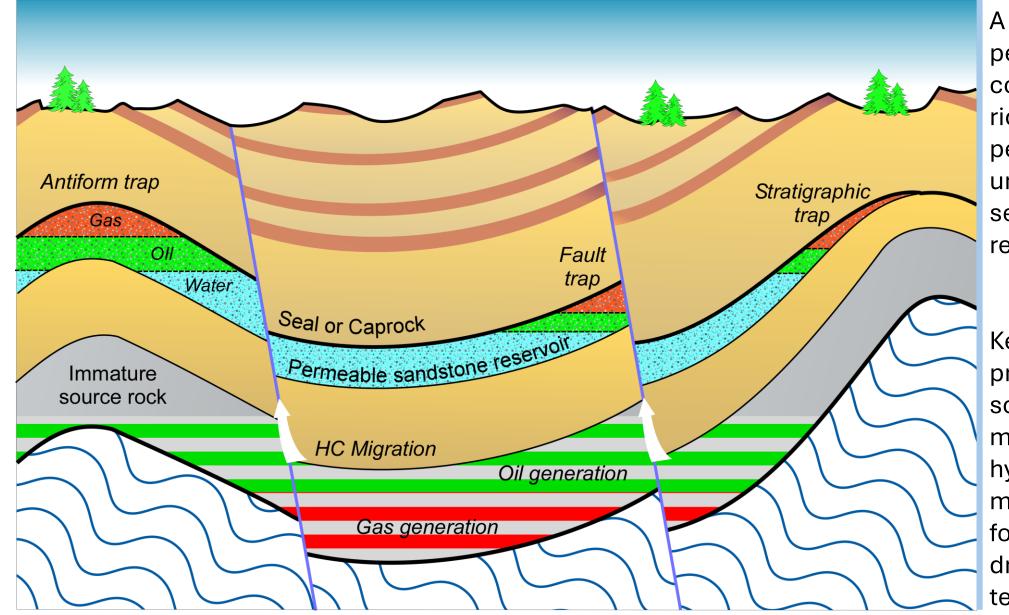
### South-eastern Idaho (speculative)

 Possible petroleum system based on world class source rock (Permian Phosphoria Fm) and existence of producing fields in the fold-and-thrust belt of Wyoming and Utah.





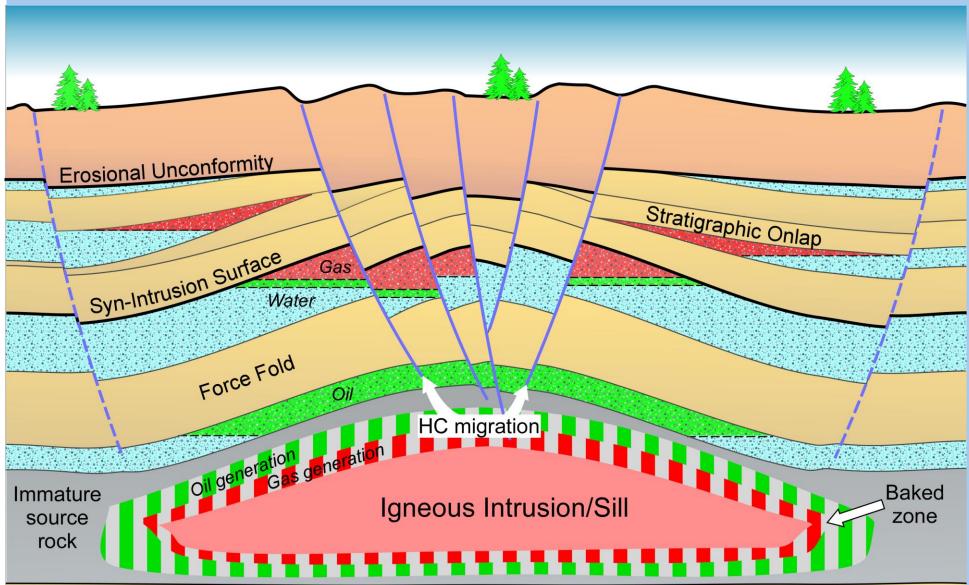
## **Conventional Petroleum System**



A complete petroleum system consists of organicrich source rocks, permeable reservoir units, and effective seals or caprocks to retain hydrocarbons.

Key geological processes include source rock maturation, hydrocarbon migration, and trap formation—often driven by regional tectonic activity.

## **Atypical Igneous Petroleum System**



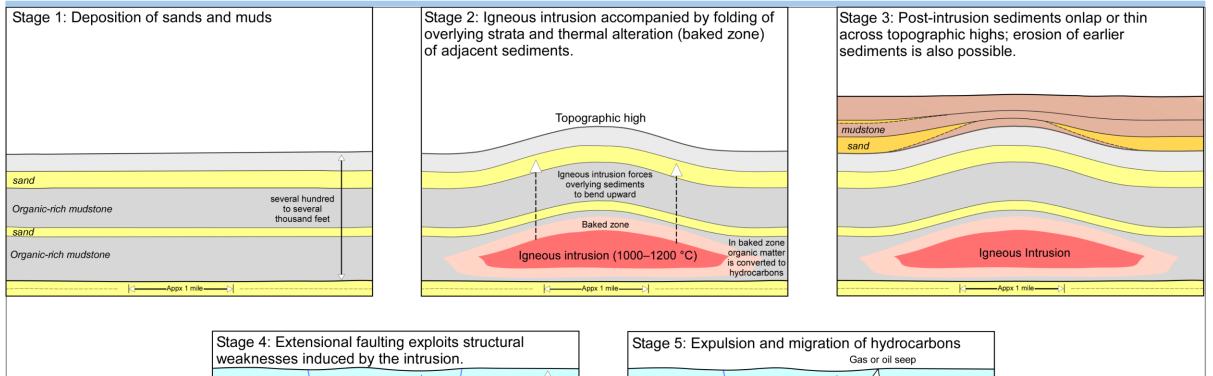
Comprise the same fundamental elements: organicrich source rocks, permeable reservoirs, and effective seals or caprocks.

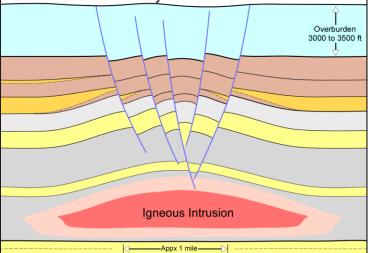
However, key processes—source rock maturation, hydrocarbon migration, and trap formation—are primarily driven by the thermal and structural impacts of igneous intrusions.

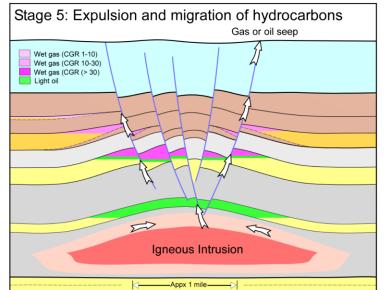




## Intrusion formed structures-Process

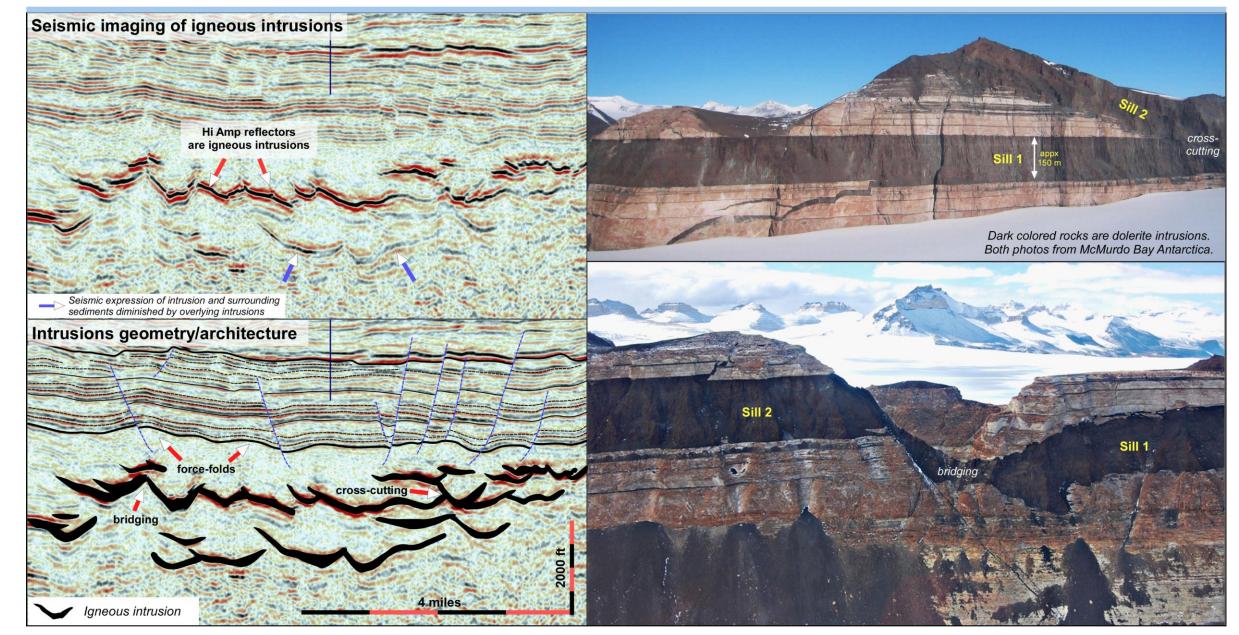






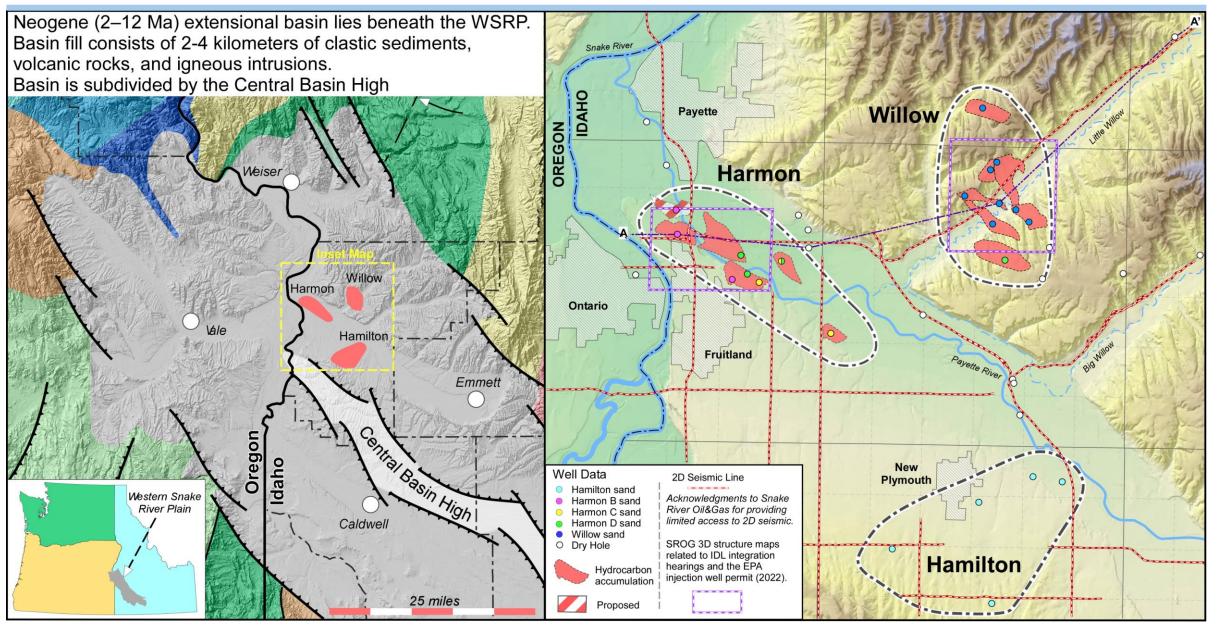


## Geometry and architecture of WSRP intrusions



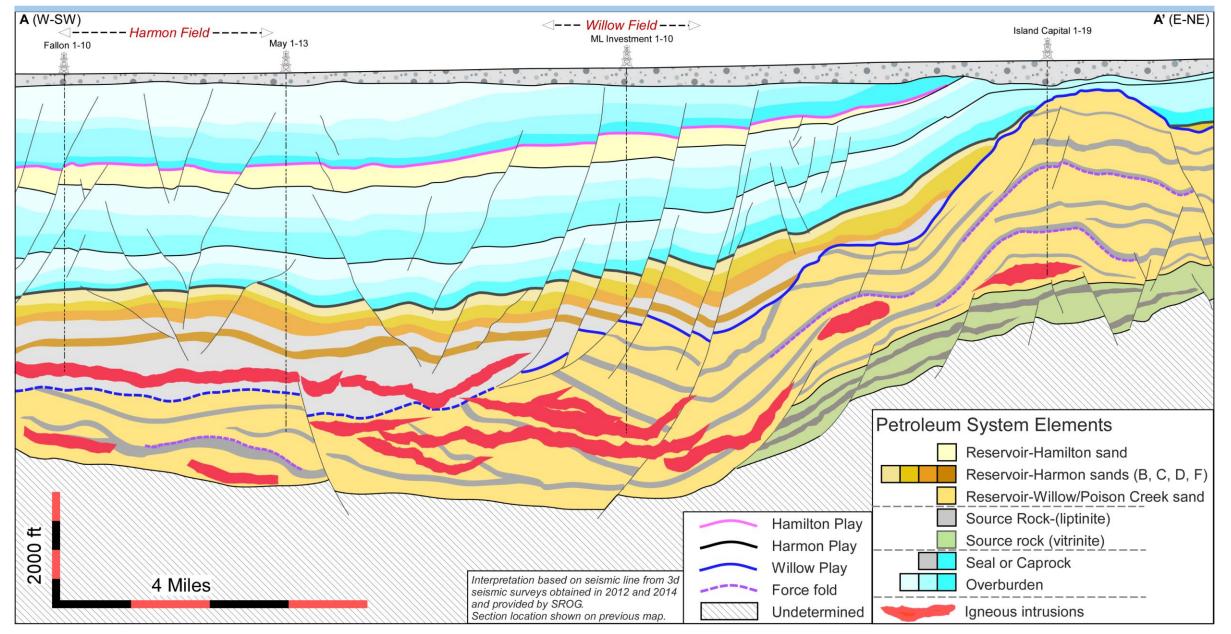


# Western Snake River Plain (WSRP) Hydrocarbon Fields



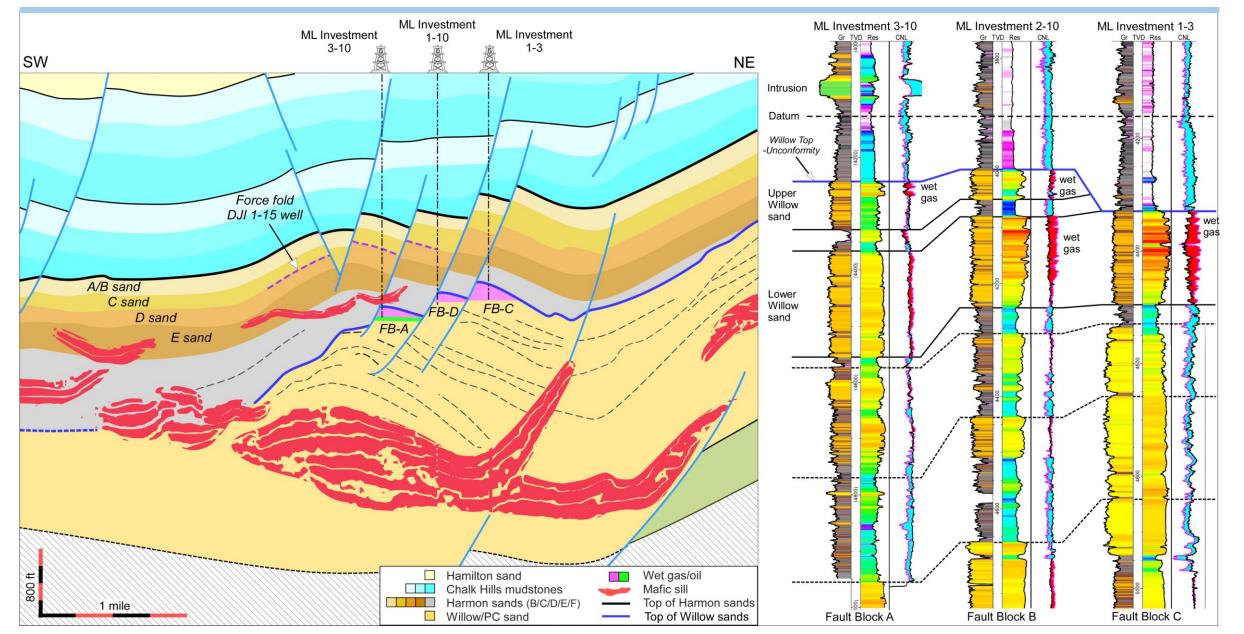


# WSRP Petroleum System



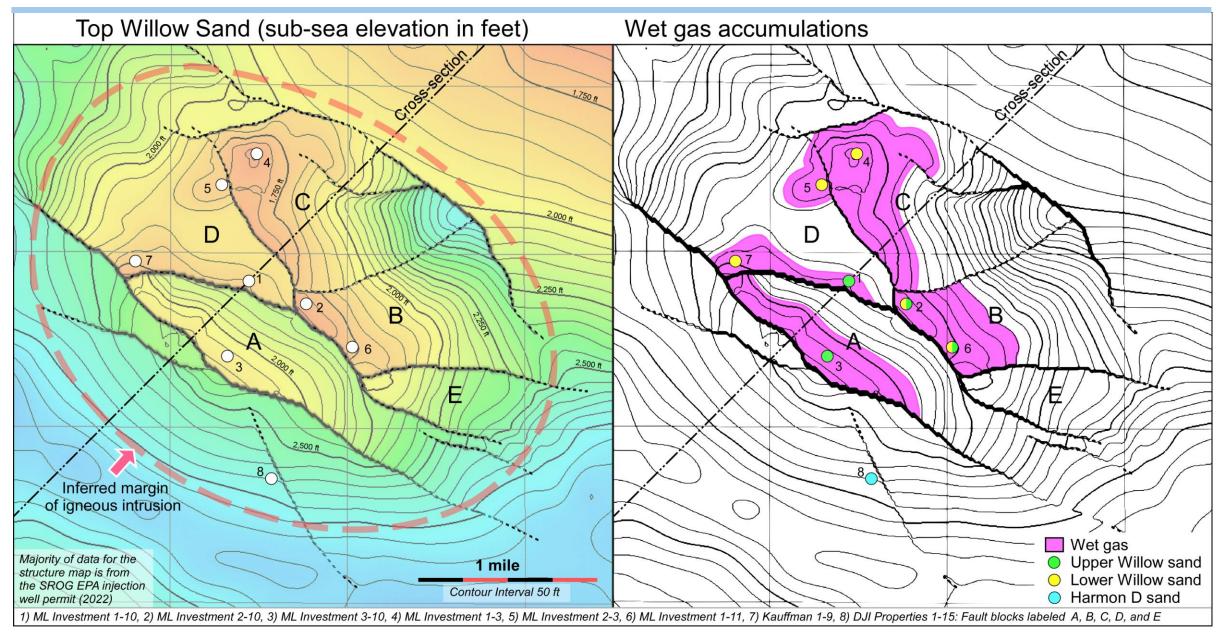


## Willow Field Geology-Cross-section



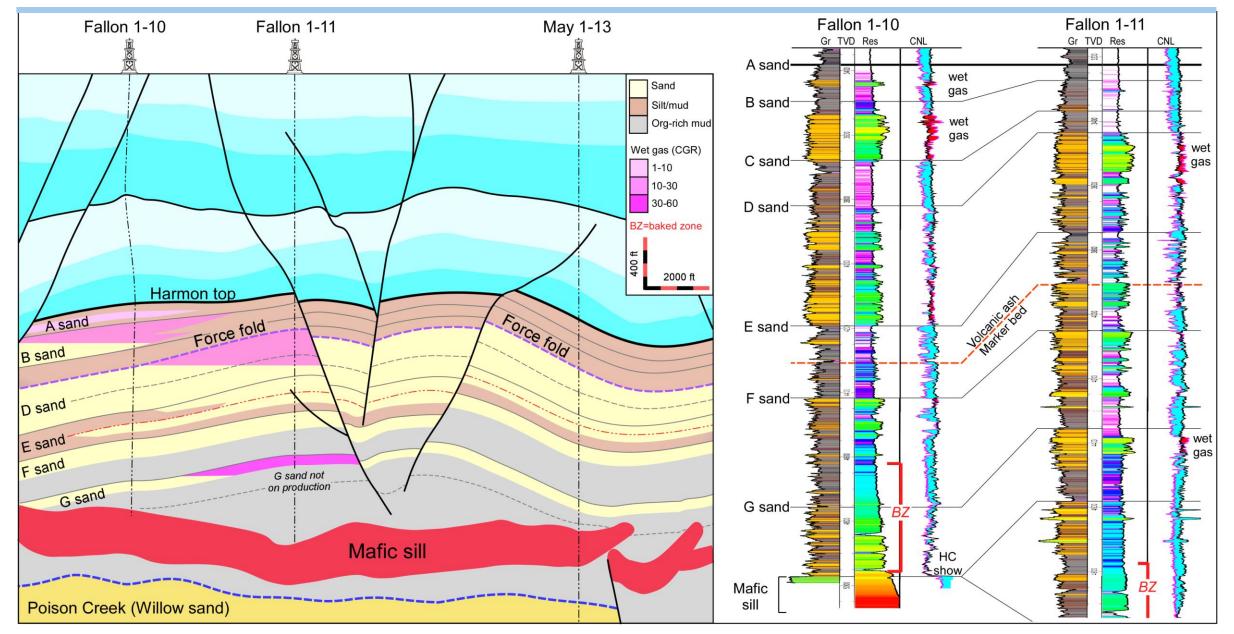


## Willow Field Geology-Structure



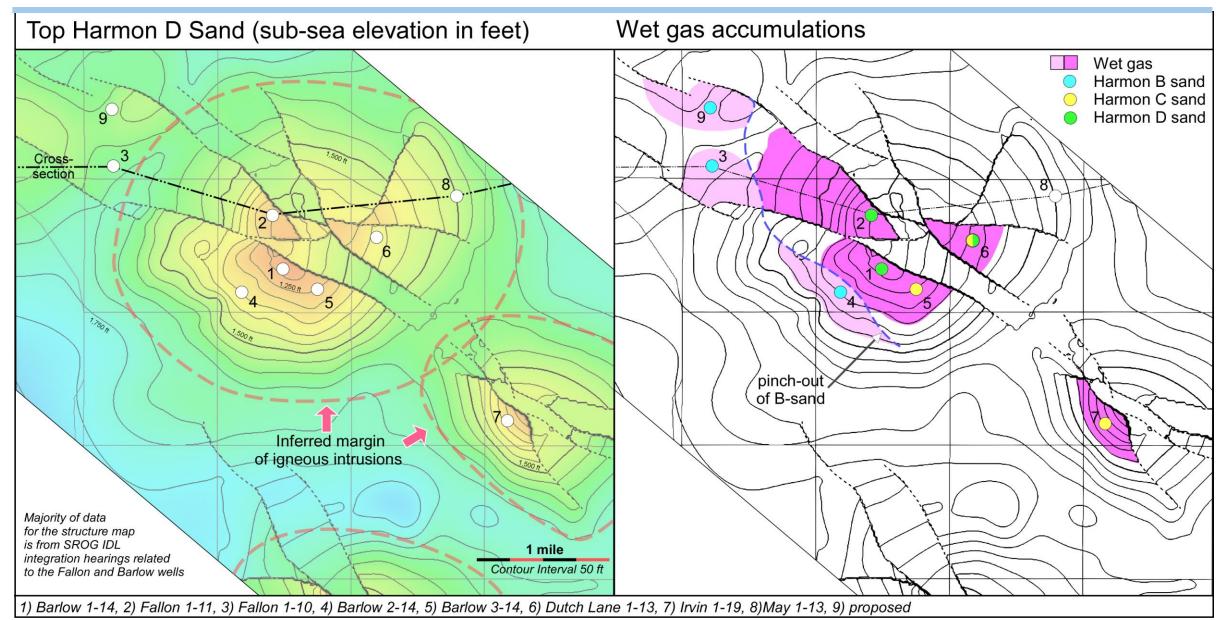


# Harmon Field Geology-Cross-section





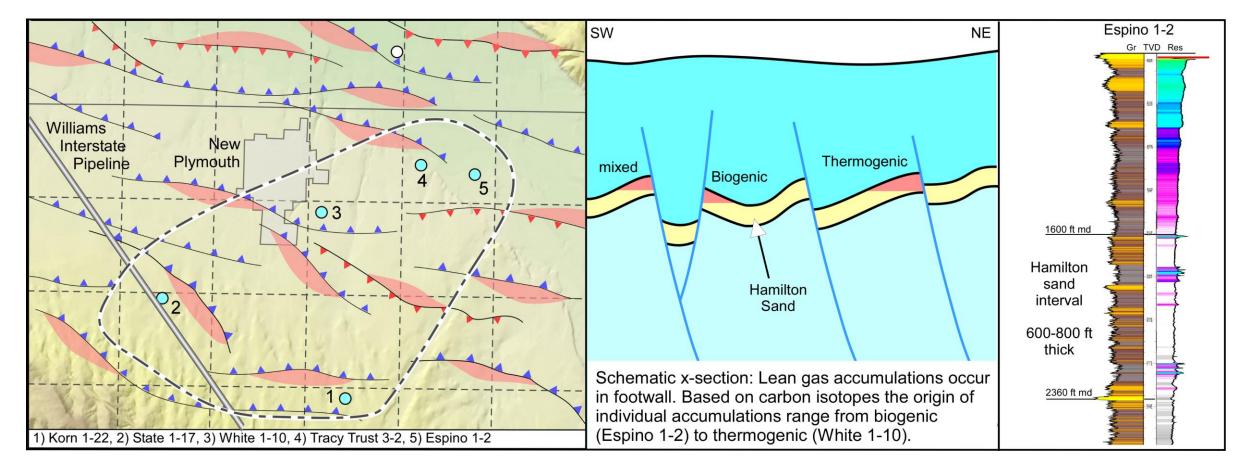
# Harmon Field Geology-Structure





# Hamilton Play

Shallow lean gas play, with Hamilton Field originally believed to be a large, continuous accumulation capable of supplying the Williams gas pipeline. Contrary to early expectations, the play comprises small, isolated accumulations located in the footwalls of normal faults, with overall poor well productivity. Field has been shut-in and subsequently abandoned. Accompanying map and cross-section is highly schematic and is not intended to represent precise geographic locations. Note-structures are the result of extension and not intrusions.





# Willow Play-Summary

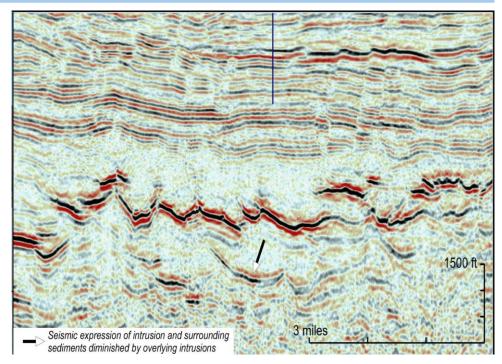
Well and seismic data suggest that the Willow play contains the key geological elements and processes indicative of a functioning petroleum system, similar to that of the Harmon play. This raises the potential for prospective gas and condensate accumulations within the region.

### Challenges

- Thick basalt layers overlying the Poison Creek Formation significantly hinder seismic imaging, making it difficult to identify or accurately evaluate subsurface prospects.
- Current subsurface uncertainty limits exploration planning and risk assessment.

### **Upside Potential**

 Acquisition of low-frequency, wide-array seismic data is an option to test the feasibility of imaging below the basalt (per James Allen, SROG). If successful, the technique could enable meaningful prospect delineation within the Willow Play.



The high reflectivity of basalts hinders seismic imaging of the underlying strata, complicating the evaluation of the Willow play.



# Harmon Play-Summary

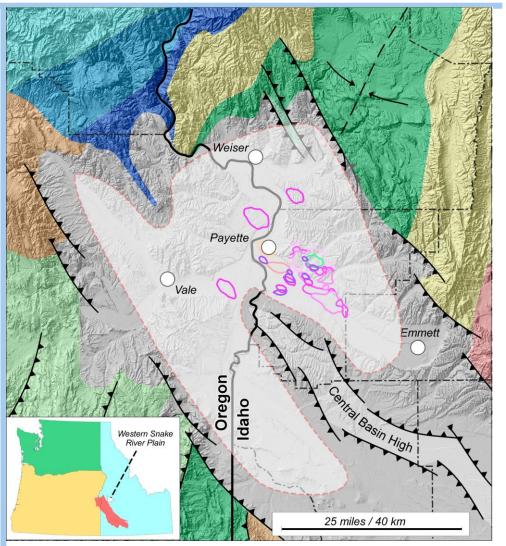
The Harmon play exhibits abundant igneous intrusions and related structures, that could represent numerous additional exploration prospects.

### Challenges

- Data from existing producing fields suggest limited potential for large-scale reservoirs (i.e., >25 Bcf gas in place), reducing the likelihood of high-volume discoveries.
- Reservoir presence and quality are highly variable across the play, making reliable volume estimation and production forecasting challenging.

### **Upside Potential**

 Recovery of heavier condensates and light oil from deeper intervals might be technically feasible with enhanced well designs or artificial lift systems.



White area represents portion of basin with common intrusions. Pink outlines represent individual sills within a small portion of the WSRP. Mapping is very incomplete.



# Hamilton Play-Summary

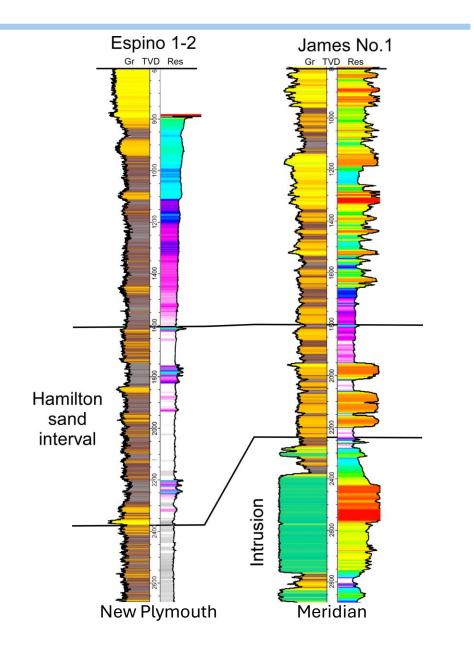
The Hamilton system represents a potential dry gas (mixed biogenic and thermogenic) play in a shallow geological setting, which may allow for cost-effective development with minimal infrastructure requirements.

### Challenges

- Reservoir gas volumes in Payette County are relatively small and sub-economic under current market conditions.
- $\circ~$  Reservoir quality is poor, which limits productivity.
- Potential for near-term development is unlikely without further supporting data or improved market conditions.

### Upside Potential

 Existing well data suggests that the Hamilton sands thicken toward the south (Canyon and Ada Counties), which could lead to larger commercial-scale gas volumes.





# Southern Basin-Summary

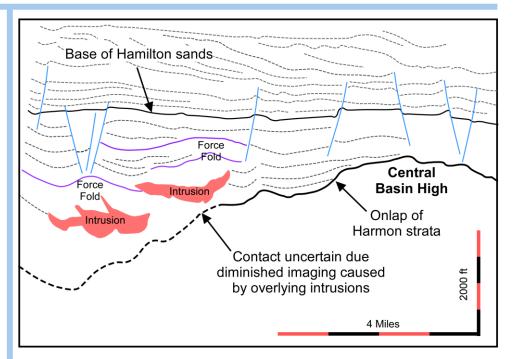
Vintage 2D seismic data reveals the presence of intrusions and force-fold structures in the Southern Basin, suggesting the potential for an atypical igneous petroleum system.

Challenges:

- The basin remains undrilled, and no well data currently exists to confirm the presence of viable reservoir or source rocks.
- Without subsurface calibration, key petroleum system elements remain speculative, increasing exploration risk.
- A stratigraphic test well would be required to assess the basin's potential. Until such data is acquired, the play is considered low-potential with high geological uncertainty.

Upside Potential

• Future exploration could be facilitated by hydrogen exploration in the region.



Interpretation of vintage 2d seismic line (IB-17) from the WSRP south of the Central Basin High. Intrusions and related force-fold structures are present within Harmon equivalent strata.

## **Questions----Thank You!**

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Miocene igneous intrusions-WSRP, Idaho