



SUNDRY NOTICES AND REPORTS ON WELLS - FORM 4

INDUSTRIAL COMMISSION OF NORTH DAKOTA
OIL AND GAS DIVISION
600 EAST BOULEVARD DEPT 405
BISMARCK, ND 58505-0840
SFN 5749 (09-2006)

RECEIVED

OCT 16 2017

Well File No.
22247

NO OIL & GAS DIVISION

PLEASE READ INSTRUCTIONS BEFORE FILLING OUT FORM.

PLEASE SUBMIT THE ORIGINAL AND ONE COPY.

<input type="checkbox"/> Notice of Intent	Approximate Start Date	<input type="checkbox"/> Drilling Prognosis	<input type="checkbox"/> Spill Report
<input checked="" type="checkbox"/> Report of Work Done	Date Work Completed October 2, 2012	<input type="checkbox"/> Redrilling or Repair	<input type="checkbox"/> Shooting
<input type="checkbox"/> Notice of Intent to Begin a Workover Project that may Qualify for a Tax Exemption Pursuant to NDCC Section 57-51.1-03.	Approximate Start Date	<input type="checkbox"/> Casing or Liner	<input type="checkbox"/> Acidizing
		<input type="checkbox"/> Plug Well	<input type="checkbox"/> Fracture Treatment
		<input type="checkbox"/> Supplemental History	<input checked="" type="checkbox"/> Change Production Method
		<input type="checkbox"/> Temporarily Abandon	<input type="checkbox"/> Reclamation
		<input type="checkbox"/> Other	

Well Name and Number
Magnum 1-36-25H

Footages	Qtr-Qtr	Section	Township	Range
250 F S L	715 F WL	SWSW	36	153 N 101 W
Field Baker	Pool Bakken		County McKenzie	

24-HOUR PRODUCTION RATE

	Before	After
Oil	252 Bbls	Oil 374 Bbls
Water	80 Bbls	Water 207 Bbls
Gas	163 MCF	Gas 4 MCF

Name of Contractor(s)
Magna Energy Services

Address 13886 Commercial Dr.	City Williston	State ND	Zip Code 58801
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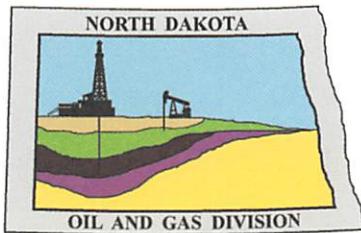
DETAILS OF WORK

RIH with 243 jts tbg. ND BOPE. Set TAC @ 35", landed on flange 20k in tension. (TAC @ 7,937' and Tbg tail @ 9211'). Prepped rods, MU production tee and flushed tbgs with 40 BSW. MU Quinn 2" x 24' RHBM pump, Quinn LHR O/O tool, 10 - 1 1/2" x 25' k-bars with 1" x 40" stabilizers. Ran rods. Spaced out rods. Stroked with rig and pressure tested to 500 psi. Tested good. Hung on unit. Built flow line. Tested with unit. Let unit pump overnight with rig standing. Turned well over to production. SDFN. 123 - 1", 125 - 7/8", 60 - 3/4" Plain, 40 - 3/4" guided (4 per), 10 - 1 1/2" x 25' K-bars, 10 - 1" x 40" guided ponies, 6' pony rod, 1-1/2" x 30' polished rod. 3/4" Guided Rods are D-90's, All other rods are N-78's

Company Slawson Exploration Company, Inc.	Telephone Number (720) 457-9820	
Address 1675 Broadway, Suite 1600		
City Denver	State CO	Zip Code 80202
Signature 	Printed Name Toni S. Domenico	
Title Production & Regulatory Tech	Date October 11, 2017	
Email Address tdomenico@slawsoncompanies.com		

FOR STATE USE ONLY

<input checked="" type="checkbox"/> Received	<input type="checkbox"/> Approved
Date 10-19-2017	
By 	
Title JARED THUNE	
Engineering Technician	



Oil and Gas Division

Lynn D. Helms - Director

Bruce E. Hicks - Assistant Director

Department of Mineral Resources

Lynn D. Helms - Director

North Dakota Industrial Commission

www.dmr.nd.gov/oilgas/

October 5, 2017

SLAWSON EXPLORATION
ATTENTION: KHEM SUTHIWAN
1675 BROADWAY, STE 1600
DENVER, CO 80202

RE:

GABRIEL 3-36-25H
SWSE 36-153N-101W
MCKENZIE COUNTY
WELL FILE NO.: 21250

MAGNUM 2-36-25H
SESE 36-153N-101W
MCKENZIE COUNTY
WELL FILE NO.: 22249

THOR 1-31-30H
SWSE 31-151N-99W
MCKENZIE COUNTY
WELL FILE NO.: 21909

MAGNUM 3-36-25H
SESE 36-153N-101W
MCKENZIE COUNTY
WELL FILE NO.: 22731

MAGNUM 1-36-25H
SWSW 36-153N-101W
MCKENZIE COUNTY
WELL FILE NO.: 22247

GABRIEL 2-36-25H
SESE 36-153N-101W
MCKENZIE COUNTY
WELL FILE NO.: 23536

Dear Khem Suthiwan:

A Sundry notice (Form 4) is needed for the above wells, detailing the changeover from flowing to well now on rod pump. If you have any questions, feel free to contact our office.

Sincerely,


Tom Delling
Petroleum Engineer - Field Inspector

TKD/RSD/RLR

North Dakota Industrial Commission Follow-up Spill Report

API Number 33 - -	
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Received

Well File or Facility No. 22247

Operator Slawson Exploration Co., Inc.						Telephone Number 303-592-8880	
Address 1675 Broadway, #1600		<i>APR 11 2016</i> ND Oil & Gas Division		City Denver	State CO	Zip Code 80202	
Well Name and Number or Facility Name MAGNUM 1-36-25H				Field BAKER			
Location of Well or Facility	Footages F L	Qtr-Qtr F L	SWSW	Section 36	Township 153 N	Range 101 W	County McKENZIE
Description of Spill Location if not on Well or Facility Site and/or Distance and Direction from Well or Facility							
Directions to Site							
Release Discovered By		Date Release Discovered December 11, 2013	Time Release Discovered :		Date Release Controlled December 11, 2013	Time Release Controlled :	
Company Personnel Notified		How Notified			Date Notified December 11, 2013	Time Notified :	
Type of Incident Tank Overflow		Root Cause of Release Human Error			Date Clean up Activities Concluded December 12, 2013		
Distance to Nearest Residence or Occupied Building		Distance to Nearest Fresh Water Well					
Piping Specifics (If Applicable)	Size (Decimal Format) "	Type			Location of Piping		
Volume of Release	Oil 15.00	Gallons	Saltwater			Other	
Volume of Release Recovered	Oil 15.00	Gallons	Saltwater			Other	
Was Release Contained Within Dike No	If No, Was Release Contained on Well Site Yes			If No, Was Release Contained on Facility Site or Pipeline ROW			
Areal Extent of Release if not Within Dike 10' X 4'			Affected Medium Well/Facility Soil			General Land Use Well/Facility Site	
<u>Describe Cause of Release or Fire and Other Type of Incidents, Root Causes of Release, Land Uses, and Released Substances</u>							
Temp. Frac tank overran on location. Oil spilled on location							
<u>Action Taken to Control Release and Clean Up Action Undertaken</u>							
Oily soil removed.							
<u>Potential Environmental Impacts</u>							
Spill did not reach any surface or groundwater receptors.							
<u>Planned Future Action and/or Action Taken to Prevent Reoccurrence</u>							
Better control over amount in tanks.							
Where Were Recovered Liquids Disposed SWD/Indian Hills				Where Were Recovered Solids Disposed Indian Hills			
Weather Conditions	Wind Speed MPH	Wind Direction	Temperature ° F	Skies		Estimated Cleanup Cost \$	Damage Value \$
Regulatory Agencies/Others Notified NDIC/NDDH		Person Notified		Date Notified		Time Notified :	Notified By
Fee Surface Owner						:	
Federal Agency Lease Number						:	
BLM						:	
USFS						:	
Report Originator Kay Gorka			Title Environmental/Regulatory Analyst			Date April 8, 2016	
Signature <i>BGK</i>						Date April 8, 2016	

North Dakota Industrial Commission Follow-up Spill Report

API Number	
33 -	-

Well File or Facility No.
22247

Received

APR 11 2016

Operator Slawson Exploration Co., Inc.	Telephone Number 303-592-8880
Address 1675 Broadway, #1600	City Denver
Well Name and Number or Facility Name MAGNUM 1-36-25H	State CO
Division Oil & Gas Division	Zip Code 80202
Field BAKER	

Location of Well or Facility	Footages F L F L	Qtr-Qtr SWSW	Section 36	Township 153 N	Range 101 W	County McKENZIE
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Description of Spill Location if not on Well or Facility Site and/or Distance and Direction from Well or Facility

Directions to Site

Release Discovered By	Date Release Discovered June 25, 2012	Time Release Discovered :	Date Release Controlled June 25, 2012	Time Release Controlled :
Company Personnel Notified	How Notified		Date Notified June 26, 2012	Time Notified :

Type of Incident Other-Described Below	Root Cause of Release Other-Described Below	Date Clean up Activities Concluded June 28, 2012
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Distance to Nearest Residence or Occupied Building	Distance to Nearest Fresh Water Well
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Piping Specifics (If Applicable)	Size (Decimal Format) "	Type	Location of Piping
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Volume of Release	Oil 325.00 Barrels	Saltwater 200.00 Barrels	Other
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Volume of Release Recovered	Oil 325.00 Barrels	Saltwater 200.00 Barrels	Other
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Was Release Contained Within Dike No	If No, Was Release Contained on Well Site Yes	If No, Was Release Contained on Facility Site or Pipeline ROW
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Areal Extent of Release if not Within Dike	Affected Medium Well/Facility Soil	General Land Use
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Describe Cause of Release or Fire and Other Type of Incidents, Root Causes of Release, Land Uses, and Released Substances

SEE NEXT PAGE

Action Taken to Control Release and Clean Up Action Undertaken

SEE NEXT PAGE

Potential Environmental Impacts

Spill did not reach any surface or groundwater receptors.

Planned Future Action and/or Action Taken to Prevent Reoccurrence

Better control of shut in wells...

Where Were Recovered Liquids Disposed SWD/Indian Hills	Where Were Recovered Solids Disposed Indian Hills
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Weather Conditions	Wind Speed MPH	Wind Direction	Temperature ° F	Skies	Estimated Cleanup Cost \$	Damage Value \$
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Regulatory Agencies/Others Notified NDIC/NDDH	Person Notified	Date Notified	Time Notified :	Notified By
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Fee Surface Owner			:	
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Federal Agency Lease Number BLM			:	
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USFS			:	
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Report Originator Kay Gorka	Title Environmental/Regulatory Analyst	Date April 8, 2016
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Signature <i>BGK</i>	Date April 8, 2016
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North Dakota Industrial Commission Follow-up Spill Report-Page 2

(Only to be used if additional space is needed)

Well File No.
22247

Well Name and Number or Facility Name MAGNUM 1-36-25H		Field BAKER				
Location of Well or Facility		Qtr-Qtr SWSW	Section 36	Township 153 N	Range 101 W	County McKENZIE
Release Discovered By		Date Release Discovered 0 June 25, 2012	Time Release Discovered 0 : 0 0	Date Release Controlled June 25, 2012		Time Release Controlled 0 : 0 0
Description of Spill Location if not on Well or Facility Site and/or Distance and Direction from Well						
Directions to Site						
<u>Describe Cause of Release or Fire and Other Type of Incidents, Root Causes of Release, Land Uses, and Released Substances</u> Well was shut in, well stopped producing for 2 1/2 weeks. Plug was installed, waiting for a workover rig to repair well. Well came alive and overcame plug.						
<u>Action Taken to Control Release and Clean Up Action Undertaken</u> Spill was discovered late in day.						
<u>Potential Environmental Impacts</u> None. No receptors impacted.						
<u>Planned Future Action and/or Action Taken to Prevent Reoccurrence</u> Better choice of plugging valve.						
Where Were Recovered Liquids Disposed Indian Hills		Where Were Recovered Solids Disposed Indian Hills				

North Dakota Industrial Commission Follow-up Spill Report

API Number 33 -	Received
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Well File or Facility No.
22247

Operator Slawson Exploration Co., Inc.		APR 11 2016		Telephone Number 303-592-8880	
Address 1675 Broadway, #1600		City Denver		State CO	
Well Name and Number or Facility Name MAGNUM 1-36-25H		Field BAKER		Zip Code 80202	
Location of Well or Facility	Footages F L	Qtr-Qtr SWSW	Section 36	Township 153 N	Range 101 W
Description of Spill Location if not on Well or Facility Site and/or Distance and Direction from Well or Facility					
Directions to Site					
Release Discovered By		Date Release Discovered October 10, 2012	Time Release Discovered :	Date Release Controlled October 10, 2012	Time Release Controlled :
Company Personnel Notified		How Notified		Date Notified October 10, 2012	Time Notified :
Type of Incident Treater Popoff		Root Cause of Release Equipment Failure/Malfunction		Date Clean up Activities Concluded October 12, 2012	
Distance to Nearest Residence or Occupied Building		Distance to Nearest Fresh Water Well			
Piping Specifics (If Applicable)	Size (Decimal Format) "	Type		Location of Piping	
Volume of Release	Oil 35.00	Saltwater	Barrels		
Volume of Release Recovered	Oil 35.00	Saltwater	Barrels		
Was Release Contained Within Dike No	If No, Was Release Contained on Well Site No		If No, Was Release Contained on Facility Site or Pipeline ROW No		
Areal Extent of Release If not Within Dike 50' X 10'		Affected Medium Topsoil		General Land Use Cultivated	
<u>Describe Cause of Release or Fire and Other Type of Incidents, Root Causes of Release, Land Uses, and Released Substances</u> Heater Treater tube blow out. Spray carried off site during storm.					
<u>Action Taken to Control Release and Clean Up Action Undertaken</u> Grasses cut, picked up and oily soil removed.					
<u>Potential Environmental Impacts</u> Spill did not reach any surface or groundwater receptors.					
<u>Planned Future Action and/or Action Taken to Prevent Reoccurrence</u> Better maintenance.....					
Where Were Recovered Liquids Disposed			Where Were Recovered Solids Disposed Clean Harbors		
Weather Conditions	Wind Speed MPH	Wind Direction	Temperature ° F	Skies	Estimated Cleanup Cost \$
Regulatory Agencies/Others Notified NDIC/NDDH		Person Notified		Date Notified	Time Notified :
Fee Surface Owner					Notified By
Federal Agency	Lease Number				
BLM					
USFS					
Report Originator Kay Gorka		Title Environmental/Regulatory Analyst			Date April 8, 2016
Signature 		Date April 8, 2016			

HALLIBURTON

6360 EAST YELLOWSTONE HWY • EVANSVILLE, WY 82636

TEL: 307-472-5757 • FAX: 307-232-2097

Certified Survey Sheet

Customer: **Slawson Exploration Company, Inc.**

Well: **Magnum 1-36-25H**

Legal: **Sec. 36-T153N-R101W**

County: **McKenzie**

State: **North Dakota**

Calculation Method: **Minimum Curvature**

I certify that the attached survey is true and correct to the best of my knowledge.



Bridget Brennecke
Well Planner

Slawson Exploration Company, Inc.

**McKenzie County, ND
Sec. 36-T153N-R101W
Magnum 1-36-25H**

Plan A

Survey: Sperry Survey

Sperry Drilling Services Standard Report

22 March, 2012

Well Coordinates: 389,408.89 N, 1,204,680.91 E (48° 01' 30.35" N, 103° 37' 20.35" W)
Ground Level: 2,187.00 ft

Local Coordinate Origin:	Centered on Well Magnum 1-36-25H
Viewing Datum:	RKB 22.00' @ 2209.00ft (Nabors 419)
TVDs to System:	N
North Reference:	True
Unit System:	API - US Survey Feet - Custom
Geodetic Scale Factor Applied	
Version: 2003.16 Build: 43I	

HALLIBURTON

Survey Report for Magnum 1-36-25H - Sperry Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/S (ft)	+E/W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)
9,506.00	0.44	263.55	9,505.25	10.02	23.24	11.31	0.00
Tie On to Extreme Surveys							
9,541.00	0.46	293.91	9,540.25	10.06	22.98	11.34	0.68
First Sperry MWD Survey							
9,636.00	0.13	208.26	9,635.24	10.12	22.58	11.38	0.49
9,732.00	0.62	275.00	9,731.24	10.07	22.01	11.29	0.61
9,827.00	0.42	258.96	9,826.24	10.05	21.16	11.22	0.26
9,922.00	0.50	258.63	9,921.24	9.90	20.41	11.03	0.08
10,018.00	0.46	338.63	10,017.23	10.17	19.86	11.28	0.64
10,113.00	0.43	344.76	10,112.23	10.87	19.63	11.96	0.06
10,209.00	0.44	264.93	10,208.23	11.19	19.16	12.25	0.58
10,304.00	1.50	29.62	10,303.22	12.24	19.42	13.31	1.88
10,336.00	6.28	30.60	10,335.14	14.11	20.51	15.24	14.94
10,368.00	11.00	29.67	10,366.76	18.27	22.92	19.53	14.76
10,400.00	15.26	27.71	10,397.92	24.65	26.39	26.10	13.38
10,431.00	18.31	29.28	10,427.60	32.51	30.67	34.19	9.95
10,463.00	20.78	31.12	10,457.75	41.76	36.06	43.73	7.95
10,495.00	24.01	30.33	10,487.33	52.24	42.28	54.54	10.14
10,527.00	27.80	29.14	10,516.11	64.38	49.21	67.06	11.95
10,558.00	31.07	28.16	10,543.11	77.75	56.51	80.82	10.66
10,590.00	34.06	28.11	10,570.07	92.94	64.63	96.44	9.34
10,622.00	37.39	27.37	10,596.05	109.48	73.32	113.44	10.49
10,654.00	40.58	27.46	10,620.92	127.35	82.59	131.80	9.97
10,685.00	43.50	27.74	10,643.94	145.74	92.20	150.71	9.44
10,717.00	46.91	28.29	10,666.48	165.78	102.87	171.32	10.73
10,749.00	49.19	28.22	10,687.87	186.74	114.14	192.89	7.13
10,781.00	53.32	28.84	10,707.89	208.67	126.06	215.44	12.99
10,813.00	57.22	29.52	10,726.12	231.62	138.88	239.09	12.31
10,845.00	61.13	29.32	10,742.52	255.55	152.38	263.74	12.23
10,877.00	64.75	30.20	10,757.07	280.28	166.52	289.23	11.57
10,908.00	68.38	30.56	10,769.40	304.82	180.90	314.54	11.76
10,940.00	72.51	29.62	10,780.11	330.90	196.02	341.43	13.20
10,972.00	75.72	28.63	10,788.87	357.79	210.99	369.12	10.46
11,004.00	78.35	28.13	10,796.04	385.22	225.81	397.34	8.36
11,036.00	80.78	27.04	10,801.84	413.11	240.38	426.01	8.30
11,067.00	83.56	26.84	10,806.06	440.49	254.30	454.13	8.99
11,099.00	86.98	26.21	10,808.70	469.02	268.53	483.42	10.87
11,131.00	90.37	26.64	10,809.44	497.66	282.77	512.82	10.68
11,163.00	91.66	27.48	10,808.87	526.15	297.32	542.09	4.81
11,226.00	90.00	26.13	10,807.96	582.38	325.73	599.82	3.40
11,258.00	89.42	25.43	10,808.12	611.19	339.65	629.37	2.84
11,290.00	89.26	24.92	10,808.49	640.15	353.26	659.05	1.67
11,354.00	89.45	24.41	10,809.21	698.31	379.96	718.63	0.85
11,449.00	90.00	23.58	10,809.67	785.09	418.60	807.45	1.05
11,494.00	90.89	23.43	10,809.32	826.36	436.54	849.67	2.01
11,529.00	91.54	22.55	10,808.58	858.57	450.21	882.60	3.13
11,584.00	92.37	24.32	10,806.70	909.00	472.07	934.18	3.55
11,678.00	89.85	19.71	10,804.88	996.10	507.28	1,023.13	5.59
11,773.00	89.51	17.15	10,805.41	1,086.22	537.32	1,114.80	2.72
11,868.00	88.34	12.58	10,807.19	1,178.00	561.68	1,207.80	4.96

Survey Report for Magnum 1-36-25H - Sperry Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/S (ft)	+E/W (ft)	Vertical Section (ft)	Dogleg Rate (/100ft)
11,963.00	89.14	8.67	10,809.28	1,271.33	579.18	1,301.97	4.20
12,057.00	89.91	5.64	10,810.06	1,364.58	590.89	1,395.74	3.33
12,152.00	90.03	1.94	10,810.11	1,459.36	597.17	1,490.72	3.90
12,183.00	90.43	0.74	10,809.99	1,490.35	597.89	1,521.70	4.08
12,246.00	89.66	0.31	10,809.94	1,553.34	598.47	1,584.63	1.40
12,309.00	89.69	359.95	10,810.29	1,616.34	598.61	1,647.54	0.57
12,340.00	89.85	359.85	10,810.42	1,647.34	598.56	1,678.48	0.61
12,402.00	90.12	359.97	10,810.44	1,709.34	598.46	1,740.38	0.48
12,434.00	90.06	359.62	10,810.38	1,741.34	598.35	1,772.32	1.11
12,527.00	90.09	358.93	10,810.26	1,834.33	597.17	1,865.10	0.74
12,590.00	90.43	359.11	10,809.98	1,897.32	596.09	1,927.93	0.61
12,621.00	90.71	359.27	10,809.67	1,928.32	595.66	1,958.85	1.04
12,715.00	90.09	0.61	10,809.01	2,022.31	595.56	2,052.69	1.57
12,778.00	90.68	0.35	10,808.59	2,085.31	596.09	2,115.61	1.02
12,809.00	90.89	0.47	10,808.16	2,116.31	596.31	2,146.57	0.78
12,905.00	89.17	0.18	10,808.11	2,212.30	596.85	2,242.45	1.82
12,999.00	89.38	0.54	10,809.30	2,306.29	597.44	2,336.32	0.44
13,095.00	90.34	0.27	10,809.54	2,402.29	598.12	2,432.20	1.04
13,190.00	89.54	0.91	10,809.64	2,497.28	599.10	2,527.10	1.08
13,253.00	90.15	1.02	10,809.81	2,560.27	600.16	2,590.05	0.98
13,285.00	90.71	1.03	10,809.57	2,592.27	600.73	2,622.02	1.75
13,316.00	89.32	1.20	10,809.56	2,623.26	601.34	2,653.00	4.52
13,380.00	89.51	0.95	10,810.21	2,687.24	602.54	2,716.95	0.49
13,475.00	89.23	0.89	10,811.26	2,782.23	604.06	2,811.87	0.30
13,538.00	88.58	0.08	10,812.46	2,845.21	604.59	2,874.79	1.65
13,569.00	88.64	0.94	10,813.21	2,876.20	604.87	2,905.74	2.78
13,663.00	89.97	0.50	10,814.35	2,970.18	606.05	2,999.64	1.49
13,726.00	89.48	359.72	10,814.66	3,033.18	606.17	3,062.55	1.46
13,757.00	89.48	359.45	10,814.94	3,064.18	605.95	3,093.48	0.87
13,852.00	89.51	359.44	10,815.78	3,159.17	605.03	3,188.27	0.03
13,946.00	91.57	359.85	10,814.89	3,253.16	604.45	3,282.08	2.23
14,009.00	92.19	359.36	10,812.82	3,316.13	604.01	3,344.92	1.25
14,041.00	92.06	359.17	10,811.64	3,348.10	603.60	3,376.82	0.72
14,104.00	91.48	359.27	10,809.69	3,411.06	602.74	3,439.63	0.93
14,136.00	91.48	359.50	10,808.86	3,443.05	602.40	3,471.55	0.72
14,167.00	90.95	0.41	10,808.21	3,474.04	602.38	3,502.49	3.40
14,230.00	89.97	0.69	10,807.70	3,537.04	602.98	3,565.42	1.62
14,294.00	89.35	0.28	10,808.08	3,601.04	603.52	3,629.34	1.16
14,325.00	89.35	0.08	10,808.43	3,632.03	603.62	3,660.30	0.65
14,389.00	90.03	0.46	10,808.78	3,696.03	603.92	3,724.21	1.22
14,421.00	90.68	0.18	10,808.58	3,728.03	604.10	3,756.17	2.21
14,515.00	89.57	359.52	10,808.37	3,822.03	603.85	3,850.00	1.37
14,610.00	89.78	359.55	10,808.91	3,917.02	603.08	3,944.80	0.22
14,705.00	89.82	358.94	10,809.25	4,012.01	601.83	4,039.57	0.64
14,801.00	90.37	358.81	10,809.09	4,107.99	599.95	4,135.29	0.59
14,896.00	89.54	359.14	10,809.16	4,202.98	598.25	4,230.03	0.94
14,991.00	89.51	358.42	10,809.95	4,297.95	596.22	4,324.74	0.76
15,085.00	89.45	358.37	10,810.80	4,391.91	593.59	4,418.40	0.08
15,179.00	89.66	357.88	10,811.53	4,485.86	590.52	4,512.03	0.57
15,211.00	90.09	358.03	10,811.60	4,517.84	589.37	4,543.89	1.42
15,274.00	90.40	359.11	10,811.33	4,580.82	587.80	4,606.68	1.78

Survey Report for Magnum 1-36-25H - Sperry Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/S (ft)	+E/W (ft)	Vertical Section (ft)	Dogleg Rate (/100ft)
15,305.00	90.25	359.41	10,811.16	4,611.81	587.40	4,637.60	1.08
15,369.00	90.62	359.98	10,810.67	4,675.81	587.06	4,701.48	1.06
15,464.00	90.22	359.37	10,809.97	4,770.81	586.52	4,796.29	0.77
15,559.00	90.62	359.63	10,809.28	4,865.80	585.69	4,891.09	0.50
15,653.00	91.33	359.30	10,807.68	4,959.78	584.82	4,984.87	0.83
15,716.00	91.70	358.86	10,806.01	5,022.75	583.80	5,047.68	0.91
15,748.00	90.34	359.40	10,805.44	5,054.74	583.32	5,079.60	4.57
15,843.00	89.29	359.97	10,805.75	5,149.74	582.80	5,174.41	1.26
15,938.00	90.31	359.62	10,806.08	5,244.73	582.46	5,269.24	1.14
16,033.00	90.55	359.94	10,805.37	5,339.73	582.09	5,364.06	0.42
16,096.00	90.89	359.14	10,804.58	5,402.72	581.59	5,426.93	1.38
16,128.00	91.05	359.10	10,804.03	5,434.71	581.09	5,458.84	0.52
16,223.00	90.86	358.96	10,802.45	5,529.69	579.49	5,553.57	0.25
16,317.00	90.06	358.55	10,801.70	5,623.66	577.44	5,647.28	0.96
16,376.00	90.43	358.38	10,801.44	5,682.64	575.86	5,706.07	0.69
16,439.00	91.02	358.90	10,800.65	5,745.62	574.37	5,768.87	1.25
16,471.00	91.05	358.86	10,800.07	5,777.61	573.74	5,800.77	0.16
16,566.00	90.06	359.85	10,799.15	5,872.59	572.67	5,895.55	1.47
16,630.00	90.34	359.63	10,798.93	5,936.59	572.38	5,959.43	0.56
16,662.00	90.31	0.00	10,798.74	5,968.59	572.28	5,991.37	1.16
16,757.00	91.08	359.27	10,797.59	6,063.58	571.68	6,086.17	1.12
16,852.00	89.66	359.23	10,796.98	6,158.57	570.43	6,180.94	1.50
16,946.00	89.97	359.04	10,797.28	6,252.56	569.01	6,274.70	0.39
17,040.00	90.31	358.57	10,797.05	6,346.54	567.05	6,368.42	0.62
17,135.00	89.51	359.11	10,797.20	6,441.51	565.13	6,463.14	1.02
17,230.00	89.72	358.18	10,797.84	6,536.48	562.88	6,557.83	1.00
17,325.00	89.69	357.88	10,798.33	6,631.43	559.62	6,652.44	0.32
17,356.00	89.54	358.09	10,798.54	6,662.41	558.53	6,683.30	0.83
17,420.00	90.25	357.64	10,798.65	6,726.36	556.14	6,747.02	1.31
17,514.00	89.26	358.88	10,799.06	6,820.31	553.29	6,840.67	1.69
17,546.00	89.48	358.56	10,799.41	6,852.30	552.57	6,872.56	1.21
17,609.00	90.03	359.34	10,799.68	6,915.29	551.42	6,935.39	1.51
17,704.00	89.63	358.36	10,799.96	7,010.27	549.51	7,030.11	1.11
17,799.00	90.49	359.75	10,799.86	7,105.26	547.95	7,124.85	1.72
17,894.00	90.71	359.82	10,798.87	7,200.25	547.59	7,219.67	0.24
17,989.00	89.91	358.75	10,798.35	7,295.24	546.40	7,314.45	1.41
18,084.00	90.00	359.60	10,798.43	7,390.23	545.04	7,409.21	0.90
18,178.00	90.65	359.45	10,797.89	7,484.22	544.26	7,503.01	0.71
18,273.00	90.09	0.54	10,797.28	7,579.22	544.25	7,597.85	1.29
18,368.00	89.85	0.32	10,797.33	7,674.22	544.96	7,692.74	0.34
18,431.00	89.51	359.71	10,797.68	7,737.22	544.98	7,755.64	1.11
18,463.00	89.17	359.11	10,798.05	7,769.21	544.65	7,787.56	2.16
18,558.00	89.35	0.84	10,799.28	7,864.20	544.61	7,882.40	1.83
18,652.00	89.94	0.81	10,799.86	7,958.19	545.96	7,976.31	0.63
18,745.00	90.18	0.59	10,799.76	8,051.18	547.10	8,069.22	0.35
18,838.00	90.12	0.29	10,799.52	8,144.18	547.81	8,162.11	0.33
18,932.00	90.55	1.39	10,798.97	8,238.16	549.19	8,256.03	1.26
19,025.00	90.99	1.06	10,797.72	8,331.13	551.18	8,348.96	0.59
19,088.00	90.86	1.06	10,796.70	8,394.11	552.34	8,411.91	0.21
19,119.00	90.86	0.63	10,796.24	8,425.11	552.80	8,442.88	1.39
19,181.00	91.02	0.88	10,795.22	8,487.09	553.62	8,504.81	0.48

Survey Report for Magnum 1-36-25H - Sperry Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/S (ft)	+E/W (ft)	Vertical Section (ft)	Dogleg Rate (/100ft)
19,212.00	90.89	0.47	10,794.70	8,518.09	553.98	8,535.77	1.39
19,274.00	90.43	359.87	10,793.99	8,580.08	554.17	8,597.68	1.22
19,305.00	90.34	359.39	10,793.78	8,611.08	553.97	8,628.62	1.58
19,398.00	91.14	359.08	10,792.58	8,704.06	552.72	8,721.38	0.92
19,491.00	90.00	359.25	10,791.65	8,797.05	551.37	8,814.14	1.24
19,584.00	90.55	359.28	10,791.21	8,890.04	550.18	8,906.92	0.59
19,677.00	91.48	359.40	10,789.56	8,983.02	549.10	8,999.69	1.01
19,770.00	89.20	359.47	10,789.01	9,076.01	548.19	9,092.48	2.45
19,801.00	90.43	0.32	10,789.11	9,107.00	548.13	9,123.42	4.82
19,863.00	90.62	359.79	10,788.54	9,169.00	548.19	9,185.32	0.91
19,894.00	90.59	0.15	10,788.21	9,200.00	548.17	9,216.27	1.17
19,925.00	89.72	359.92	10,788.13	9,231.00	548.19	9,247.22	2.90
19,957.00	87.53	359.58	10,788.90	9,262.99	548.05	9,279.15	6.93
19,987.00	87.66	359.77	10,790.16	9,292.96	547.88	9,309.07	0.77
20,050.00	88.77	359.88	10,792.12	9,355.93	547.69	9,371.93	1.77
20,081.00	88.61	359.79	10,792.83	9,386.92	547.60	9,402.86	0.59
20,144.00	89.88	359.09	10,793.66	9,449.91	546.99	9,465.72	2.30
20,237.00	90.22	358.67	10,793.58	9,542.89	545.17	9,558.45	0.58
20,330.00	90.22	358.44	10,793.22	9,635.86	542.82	9,651.14	0.25
20,426.00	89.14	357.61	10,793.75	9,731.80	539.52	9,746.74	1.42
20,520.00	89.72	357.79	10,794.69	9,825.72	535.74	9,840.30	0.65
20,614.00	90.03	356.85	10,794.89	9,919.62	531.35	9,933.79	1.05
20,682.00	90.15	356.44	10,794.79	9,987.50	527.37	10,001.35	0.63
Final Sperry MWD Survey							
20,730.00	90.15	356.44	10,794.66	10,035.41	524.39	10,049.01	0.00
Straight Line Projection to Bit							

Survey Annotations

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/S (ft)	+E/W (ft)	
9,506.00	9,505.25	10.02	23.24	Tie On to Extreme Surveys
9,541.00	9,540.25	10.06	22.98	First Sperry MWD Survey
20,682.00	10,794.79	9,987.50	527.37	Final Sperry MWD Survey
20,730.00	10,794.66	10,035.41	524.39	Straight Line Projection to Bit

Vertical Section Information

Angle Type	Target	Azimuth (°)	Origin Type	Origin +N/S (ft)	Origin +E/W (ft)	Start TVD (ft)
Target	Magnum 1-36-25H BHL	3.23	Slot	0.00	0.00	0.00

Survey tool program

From (ft)	To (ft)	Survey/Plan	Survey Tool
2,182.00	9,506.00	Extreme Survey	MWD
9,541.00	20,730.00	Sperry Survey	MWD

Survey Report for Magnum 1-36-25H - Sperry Survey**Casing Details**

Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter ("")	Hole Diameter ("")
2,182.00	9 5/8"		9-5/8	12-1/4
11,529.00	10,808.58	7"	7	8-3/4

Formation Details

Measured Depth (ft)	Vertical Depth (ft)	TVDSS (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
7,889.74	7,889.00	5,680.00	Tyler		0.00	
8,442.74	8,442.00	6,233.00	Kibbey		0.00	
8,616.75	8,616.00	6,407.00	Charles Salt		0.00	
9,266.75	9,266.00	7,057.00	Base of Last Salt		0.00	
9,482.75	9,482.00	7,273.00	Mission Canyon		0.00	
10,024.77	10,024.00	7,815.00	Lodgepole		0.00	
10,901.60	10,767.00	8,558.00	False Bakken		0.00	
10,926.94	10,776.00	8,567.00	Upper Bakken Shale		0.00	
10,980.88	10,791.00	8,582.00	Middle Bakken		0.00	

Targets

Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (ft)	Easting (ft)	Latitude	Longitude
Magnum 1-36-25H F	0.00	0.00	-4.00	0.01	0.00	389,408.91	1,204,680.91	48° 1' 30.350 N	103° 37' 20.350 W
- survey misses target center by 9509.28ft at 9506.00ft MD (9505.25 TVD, 10.02 N, 23.24 E)									
- Polygon									
Magnum 1-36-25H F	0.00	0.00	-4.00	0.01	0.00	389,408.91	1,204,680.91	48° 1' 30.350 N	103° 37' 20.350 W
- survey misses target center by 9509.28ft at 9506.00ft MD (9505.25 TVD, 10.02 N, 23.24 E)									
- Polygon									
Magnum 1-36-25H E	0.00	0.00	10,787.00	10,036.05	567.00	399,413.07	1,205,654.25	48° 3' 9.390 N	103° 37' 12.004 W
- survey misses target center by 43.25ft at 20728.02ft MD (10794.67 TVD, 10033.43 N, 524.51 E)									
- Point									
Magnum 1-36-25H F	0.00	0.00	-4.00	0.01	0.00	389,408.91	1,204,680.91	48° 1' 30.350 N	103° 37' 20.350 W
- survey misses target center by 9509.28ft at 9506.00ft MD (9505.25 TVD, 10.02 N, 23.24 E)									
- Polygon									

North Reference Sheet for Sec. 36-T153N-R101W - Magnum 1-36-25H - Plan A

All data is in US Feet unless otherwise stated. Directions and Coordinates are relative to True North Reference.

Vertical Depths are relative to RKB 22.00' @ 2209.00ft (Nabors 419). Northing and Easting are relative to Magnum 1-36-25H

Coordinate System is US State Plane 1983, North Dakota Northern Zone using datum North American Datum 1983, ellipsoid GRS 1980

Projection method is Lambert Conformal Conic (2 parallel)

Central Meridian is $100^{\circ} 30' 0.000$ W°, Longitude Origin: $0^{\circ} 0' 0.000$ E°, Latitude Origin: $48^{\circ} 44' 0.000$ N°

False Easting: 1,968,500.00ft, False Northing: 0.00ft, Scale Reduction: 0.99993638

Grid Coordinates of Well: 389,408.89 ft N, 1,204,680.91 ft E

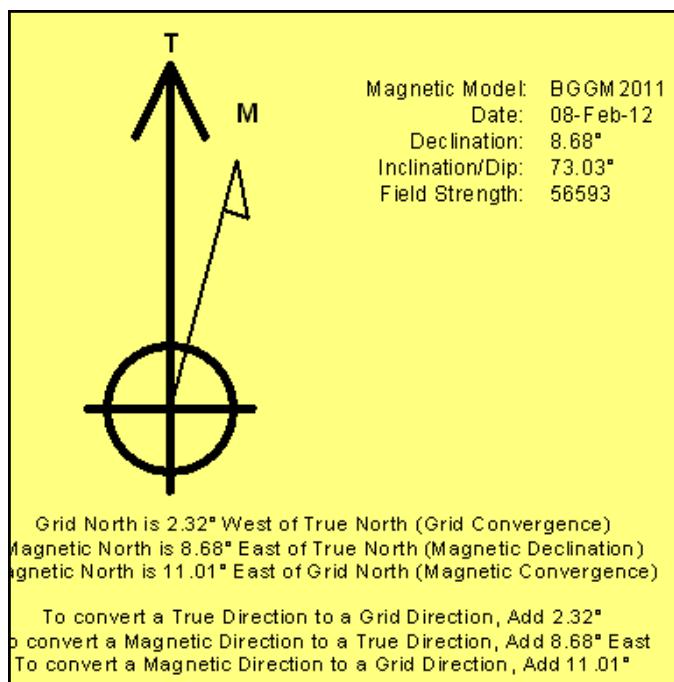
Geographical Coordinates of Well: $48^{\circ} 01' 30.35''$ N, $103^{\circ} 37' 20.35''$ W

Grid Convergence at Surface is: -2.32°

Based upon Minimum Curvature type calculations, at a Measured Depth of 20,730.00ft

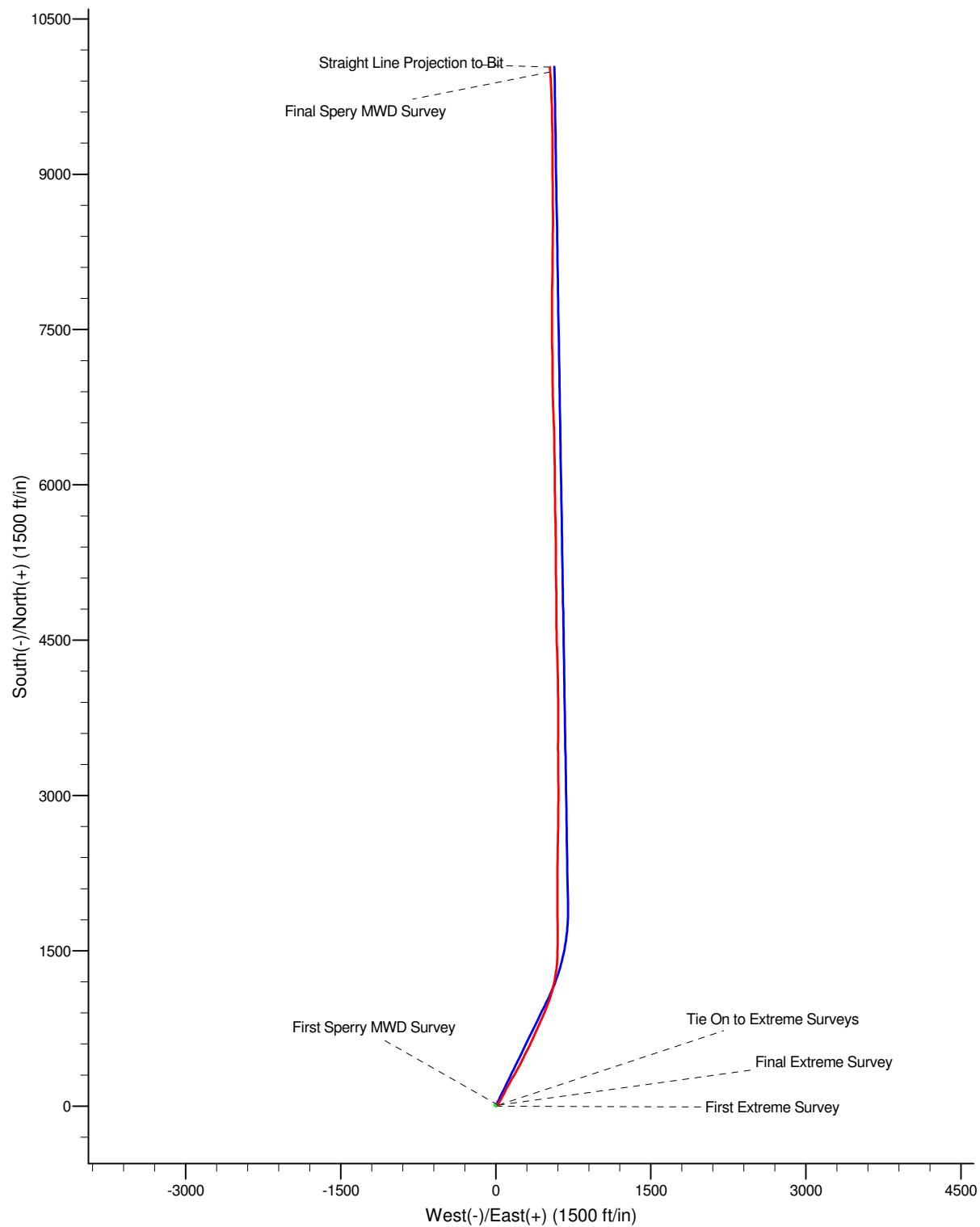
the Bottom Hole Displacement is 10,049.10ft in the Direction of 2.99° (True).

Magnetic Convergence at surface is: -11.01° (8 February 2012, , BGGM2011)



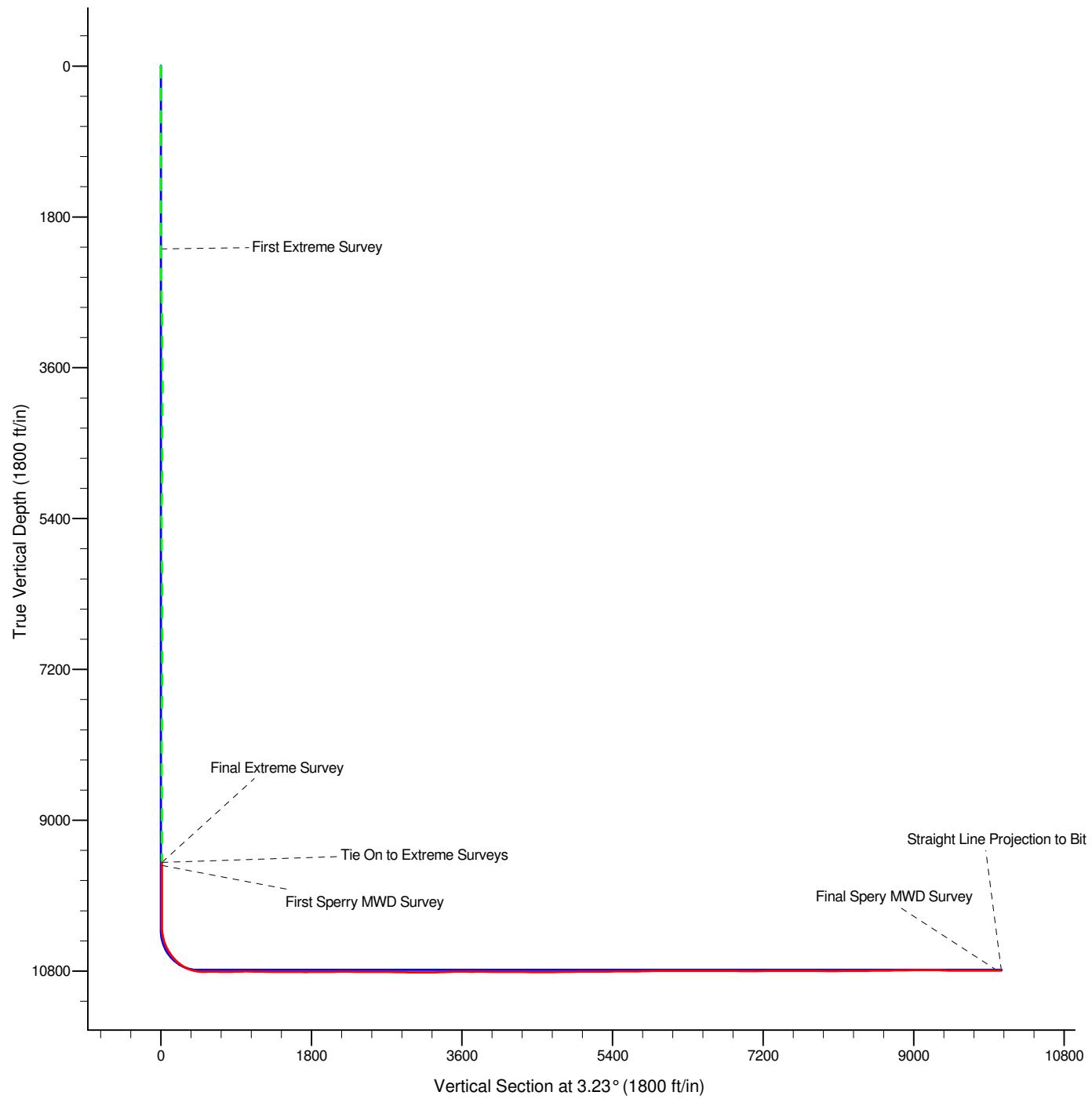
LEGEND

- Magnum 1-36-25H, Plan A, Plan A Rev 3 V0
- Magnum 1-36-25H, Plan A, Extreme Survey
- Sperry Survey



L E G E N D

- Magnum 1-36-25H, Plan A, Plan A Rev 3 V0
- - - Magnum 1-36-25H, Plan A, Extreme Survey
- Sperry Survey



Industrial Commission of North Dakota
Oil and Gas Division
Spill / Incident Report

Date/Time Reported : Dec 11 2013 / 16:12

State Agency person :

Responsible Party : Slawson Exploration Co., Inc.

Well Operator : SLAWSON EXPLORATION COMPANY, INC.

Date/Time of Incident : 12/11/2013 12:00:00 AM

NDIC File Number : 22247

Facility Number :

Well or Facility Name : MAGNUM 1-36-25H

Type of Incident : Vessel Leak

Field Name : BAKER

County : MCKENZIE

Section : 36

Township : 153

Range : 101

Quarter-Quarter : SW

Quarter : SW

Distance to nearest residence : 0.65 Miles

Distance to nearest water well : 0.65 Miles

Release Oil : 15 gallons

Release Brine : 0 barrels

Release Other : 0 barrels

Recovered Oil : 15 gallons

Recovered Brine : 0 barrels

Recovered Other : 0 barrels

Has/Will the incident be reported to the NRC? : No

Was release contained : Yes - Within Dike

Description of other released substance :

Immediate risk evaluation : none

Followup Report Requested Y/N : Y



SUNDRY NOTICES AND REPORTS ON WELLS - FORM 4

INDUSTRIAL COMMISSION OF NORTH DAKOTA
OIL AND GAS DIVISION
800 EAST BOULEVARD DEPT 405
BISMARCK, ND 58505-0840
SPN 5749 (09-2008)

Well File No.
22247

PLEASE READ INSTRUCTIONS BEFORE FILLING OUT FORM.
PLEASE SUBMIT THE ORIGINAL AND ONE COPY.

<input checked="" type="checkbox"/> Notice of Intent	Approximate Start Date February 18, 2013	<input type="checkbox"/> Drilling Prognosis	<input type="checkbox"/> Spill Report
<input type="checkbox"/> Report of Work Done	Date Work Completed	<input checked="" type="checkbox"/> Redrilling or Repair	<input type="checkbox"/> Shooting
<input type="checkbox"/> Notice of Intent to Begin a Workover Project that may Qualify for a Tax Exemption Pursuant to NDCC Section 57-51.1-03.	Approximate Start Date	<input type="checkbox"/> Casing or Liner	<input type="checkbox"/> Acidizing
		<input type="checkbox"/> Plug Well	<input type="checkbox"/> Fracture Treatment
		<input type="checkbox"/> Supplemental History	<input type="checkbox"/> Change Production Method
		<input type="checkbox"/> Temporarily Abandon	<input type="checkbox"/> Reclamation
		<input type="checkbox"/> Other	

Well Name and Number
Magnum 1-36-25H

Footages	Qtr-Qtr	Section	Township	Range
250 F S L 815 F WL	SWSW	36	153 N	101 W
Field Baker	Pool Bakken		County McKenzie	

24-HOUR PRODUCTION RATE

	Before	After	
Oil	Bbls	Oil	Bbls
Water	Bbls	Water	Bbls
Gas	MCF	Gas	MCF

Name of Contractor(s)

Address

City

State

Zip Code

DETAILS OF WORK

Slawson Exploration Company, Inc. (SECI) will perform remedial work on the Magnum 1-36-25H well. Attached with this form is the procedure of work to be completed and the well bore diagram for your review.

Company Slawson Exploration Company, Inc.	Telephone Number (720) 457-9821
Address 1675 Broadway, Suite 1600	
City Denver	State CO
Signature 	Printed Name Khem Suthiwan
Title Permitting Manager	Date January 23, 2012
Email Address ksuthiwan@slawsoncompanies.com	

FOR STATE USE ONLY

<input type="checkbox"/> Received	<input checked="" type="checkbox"/> Approved
Date 4-12-2013	
By 	
Title Richard A. Suggs	Geologist

REMEDIAL PROCEDURE
SLAWSON EXPLORATION COMPANY, INC

**Magnum 1-36-25H
250' FSL & 815' FWL
Section 36-T153N-R101W
McKenzie Co., North Dakota**

Status:

Total Depth:	20,730'
Important Depths:	Pkrs Plus LH: 9,284'. KOP: 10,304'.
Elevation:	Ground Level 2,191', Kelly Bushing 2,211'.
Casing Strings:	9-5/8", 36#, J-55 @ 2,160'. TOC: Surface. 7", 29#/32#, P-110 @ 11,482'. ECP in 7" casing beneath liner hanger. See WBD for details
Tubing String:	282 jts 2-7/8" L-80 6.5# tbg and pumping BHA. See WBD for details.
Rod String:	Norris 78s with a 86 taper and 2" plunger pump. See WBD for details.
Problems/History:	Drill rig lost circulation in Mission Canyon, ran an ECP to pack off above Mission Canyon for the second stage of the cement job. CBL does not show cement above ECP but does show salts pressing against pipe. When running TAC, stacked out @ 8,165', assume restriction to be frac balls stacked up in the vertical. Ran 3.70" mill, but could not drill more than 10' past liner hanger, got sand and ball frac ball chunks in returns, decided to run rods and pump until after the Magnum #3 and #2 are done being completed. This was done to avoid working while there is a chance of communication during the fracture stimulation.

Procedure

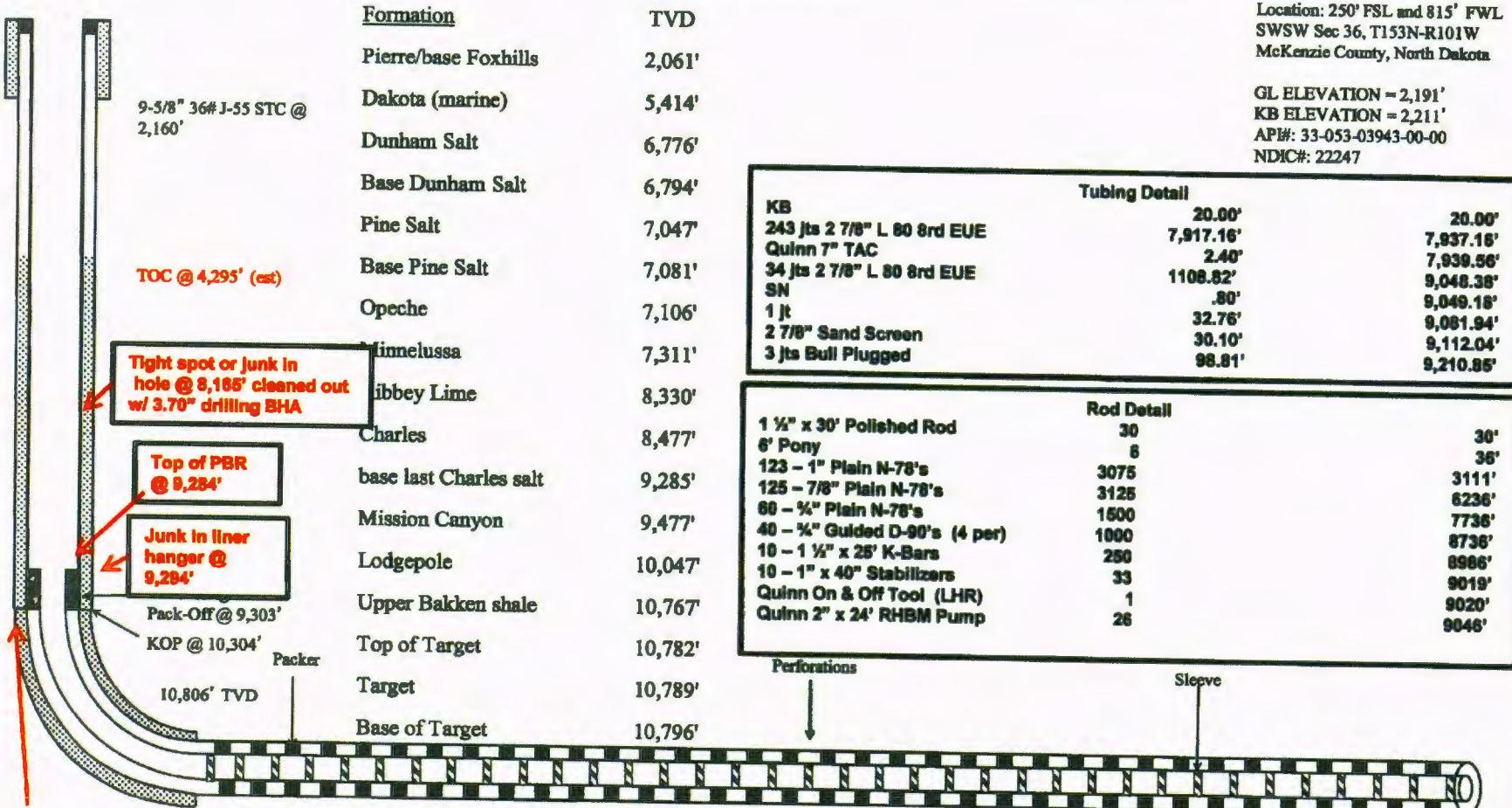
1. MIRU WO rig, unseat pump & LD rods. POOH and tally tbg, LD pumping BHA. RU wireline, make 6" caliper to liner hanger. PU and make 3.70" gauge ring into liner hanger and around curve. Make cleanout run around curve w/ 2-3/8" tbg and drilling assembly if needed.
2. PU and wireline set a 4" drillable bridge plug @ 9,350'. Pressure test casing to 2500 psi. RIH and shot sqz holes @ 7,975'.
3. Establish circulation down 7" csg and up 7" x 9-5/8" annulus. RIH CICR on 2-7/8" tbg and set @ 7,775', re-establish circulation up annulus and pump cement job, attempt to bring cement to surface w/ 30% excess, hesitate in final 5 bbl of cement, displace to 50' below CICR.
4. PU 6" cement drilling BHA and 2-7/8" tbg, DO cement down to LH top, pressure test casing to 1500 psi. Run CBL to insure good cement. Review CBL results and repeat sqz procedure to insure cement isolation over Amsden, Minnekahta, and Dakota formations if needed. Confirm CBL results with NDIC before proceeding. PU 3.80" drilling BHA, 2-3/8" tbg and drillout out 4-1/2" to third frac sleeve.
5. POOH and LD 3.80" drilling BHA and 2-3/8" tbg. PU pumping BHA and tbg. PU 1.75" insert pump and rods, PWOL.

Will Dickinson
January 29, 2013



Updated 10/02/12
By Larry Garcia

WELLBORE DIAGRAM
Magnum #1-36-25H



7" ECP @ 9,400'	7" 32# P-110 from	Surface	to	237'
	7" 29# P-110 from	237'	to	6,670'
	7" 32# P-110 from	6,670'	to	9,392'
	7" 29# P-110 from	9,392'	to	11,482'

8,011' of 4-1/2" 11.6# BTC &
2,438' of 4-1/2" 13.5# LTC
liner with 32 packers, 31 sleeves
and a liner hanger with pack-off
(967' of tools). Set Liner at
20,700'

Lateral TD @ 20,730' MD,
10,794' TVD

Industrial Commission of North Dakota
Oil and Gas Division
Spill / Incident Report

Date/Time Reported : Oct 10 2012 / 22:25

State Agency person :

Responsible Party : Slawson Exploration Company, Inc

Well Operator : SLAWSON EXPLORATION COMPANY, INC.

Date/Time of Incident : 10/10/2012 12:00:00 AM

NDIC File Number : 22247

Facility Number :

Well or Facility Name : MAGNUM 1-36-25H

Type of Incident : Stuffing Box Leak

Field Name : BAKER

County : MCKENZIE

Section : 36

Township : 153

Range : 101

Quarter-Quarter : SW

Quarter : SW

Distance to nearest residence : 1.5 Miles

Distance to nearest water well : 1.5 Miles

Release Oil : 35 barrels

Release Brine : 0 barrels

Release Other : 0 barrels

Recovered Oil : 30 barrels

Recovered Brine : 0 barrels

Recovered Other : 0 barrels

Has/Will the incident be reported to the NRC? : Unknown

Was release contained : Yes - Within Dike

Description of other released substance :

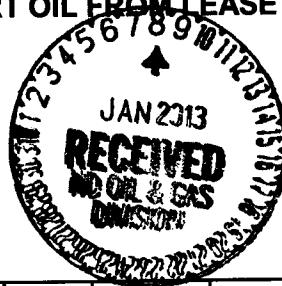
Immediate risk evaluation : None, well was quickly controlled

Followup Report Requested Y/N : Y



AUTHORIZATION TO PURCHASE AND TRANSPORT OIL FROM LEASE - FORM 8

INDUSTRIAL COMMISSION OF NORTH DAKOTA
OIL AND GAS DIVISION
600 EAST BOULEVARD DEPT 405
BISMARCK, ND 58505-0840
SFN 5698 (03-2000)



Well File No.	20151
NDIC CTB No.	120151

122247

PLEASE READ INSTRUCTIONS BEFORE FILLING OUT FORM.

PLEASE SUBMIT THE ORIGINAL AND FOUR COPIES.

Well Name and Number Magnum 1-36-25H	Qtr-Qtr SWSW	Section 36	Township 153 N	Range 101 W	County McKenzie
Operator Slawson Exploration Company, Inc.			Telephone Number 720-457-9820	Field Baker	
Address 1675 Broadway, Suite 1600			City Denver	State CO	Zip Code 80202

Name of First Purchaser St Paul Park Refining Company, LLC	Telephone Number 713-534-1692	% Purchased 100%	Date Effective January 1, 2013
Principal Place of Business 770 South Post Oak Lane Suite 270	City Houston	State TX	Zip Code 77065
Field Address	City	State	Zip Code
Name of Transporter Northern Tier Oil Transport LLC	Telephone Number 701-628-6869	% Transported 90%	Date Effective January 1, 2013
Address 8116 61st NW Lot 6 East	City Stanley	State ND	Zip Code 58784

The above named producer authorizes the above named purchaser to purchase the percentage of oil stated above which is produced from the lease designated above until further notice. The oil will be transported by the above named transporter.

Other First Purchasers Purchasing From This Lease	% Purchased	Date Effective
Other First Purchasers Purchasing From This Lease	% Purchased	Date Effective
Other Transporters Transporting From This Lease Maxxon Energy	% Transported 10%	Date Effective January 1, 2013
Other Transporters Transporting From This Lease	% Transported	Date Effective
Comments Change in first purchaser from Northern Tier to St Paul Park Refining Company LLC.		

I hereby swear or affirm that the information provided is true, complete and correct as determined from all available records.	Date January 4, 2013	
Signature 	Printed Name Matt Glenn	Title Engineering Technician

Above Signature Witnessed By Witness Signature 	Witness Printed Name Stacy Leyshon	Witness Title Marketing Analyst
---	--	---

FOR STATE USE ONLY	
Date Approved FEB 15 2013	
By 	
Title Eric Roberson	
Oil & Gas Production Analyst	

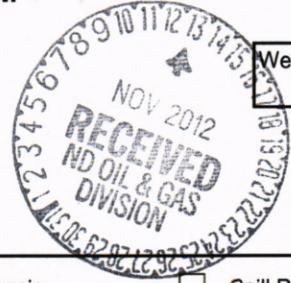


SUNDY NOTICES AND REPORTS ON WELLS - FORM 4

INDUSTRIAL COMMISSION OF NORTH DAKOTA
OIL AND GAS DIVISION
600 EAST BOULEVARD DEPT 405
BISMARCK, ND 58505-0840
SFN 5749 (09-2006)

Well File No.

22247



PLEASE READ INSTRUCTIONS BEFORE FILLING OUT FORM.

PLEASE SUBMIT THE ORIGINAL AND ONE COPY.

Notice of Intent

Approximate Start Date

Report of Work Done

Date Work Completed

August 31, 2012

Notice of Intent to Begin a Workover Project that may Qualify
for a Tax Exemption Pursuant to NDCC Section 57-51.1-03.

Approximate Start Date

Drilling Prognosis

Spill Report

Redrilling or Repair

Shooting

Casing or Liner

Acidizing

Plug Well

Fracture Treatment

Supplemental History

Change Production Method

Temporarily Abandon

Reclamation

Other

Pit & surface Reclamation

Well Name and Number

Magnum 1-36-25H

Footages

250 F S L

815 F W L

Qtr-Qtr

SWSW

Section

36

Township

153 N

Range

101 W

Field

Baker

Pool

Bakken

County

McKenzie

24-HOUR PRODUCTION RATE

	Before		After
Oil	Bbls	Oil	Bbls
Water	Bbls	Water	Bbls
Gas	MCF	Gas	MCF

Name of Contractor(s)

W.L. Neu Construction, Inc.

Address

PO Box 461

City

Fairview

State

MT

Zip Code

59221

DETAILS OF WORK

Slawson Exploration Company, Inc. has completed reclamation work on the reserve pit of this well. The surface owner is Verlin L Fossum, 13922 43RD ST NW, Williston, ND 58801-8709. Any oil in the pit was skimmed off and used in Invert Mud for drilling other wells. The water was disposed of by Landtech at Slawson's licensed injection facilities known as the Moen 1-35SWD. Once the fluids were removed the cuttings were dried and mixed with fly ash for stabilization. The liner was folded over the stabilized cuttings into the pit and buried approximately 6 ft. deep with back fill and topsoil. The site will be re-seeded.

Company	Telephone Number		
Slawson Exploration Company, Inc.	720-457-9820		
Address			
1675 Broadway, Suite 1600			
City	State	Zip Code	
Denver	CO	80202	
Signature	Printed Name		
<i>Matthew Glenn</i>	Matthew Glenn		
Title	Date		
Engineering Technician	November 8, 2012		
Email Address			
mglen@slawsoncompanies.com			

FOR STATE USE ONLY

<input checked="" type="checkbox"/> Received	<input type="checkbox"/> Approved
Date	<i>11-15-12</i>
By	<i>Matthew Glenn</i>
Title	<i>Engineering Technician</i>

Industrial Commission of North Dakota
Oil and Gas Division
Spill / Incident Report

Date/Time Reported : Jun 26 2012 / 21:10

State Agency person :

Responsible Party :

Well Operator : SLAWSON EXPLORATION COMPANY, INC.

Date/Time of Incident : 6/25/2012 12:00:00 AM

NDIC File Number : 22247

Facility Number :

Well or Facility Name : MAGNUM 1-36-25H

Field Name : BAKER

County : MCKENZIE

Section : 36

Township : 153

Range : 101

Quarter-Quarter : SW

Quarter : SW

Distance to nearest residence : 1.5 Miles

Distance to nearest water well : 1.5 Miles

Release Oil : 325 barrels

Release Brine : 200 barrels

Release Other : 0 barrels

Recovered Oil : 323 barrels

Recovered Brine : 180 barrels

Recovered Other : 0 barrels

Has/Will the incident be reported to the NRC? : No

Was release contained : Yes - On Constructed Well Site

Description of other released substance :

Immediate risk evaluation : Flammable.

Followup Report Requested Y/N : Y

22247
AA

Oil and Gas Division



Lynn D. Helms - Director Bruce E. Hicks - Assistant Director

Department of Mineral Resources

Lynn D. Helms - Director

North Dakota Industrial Commission

www.oilgas.nd.gov

June 4, 2012

SLAWSON EXPLORATION
KHEM SUTHIWAN
1675 BROADWAY SUITE 1600
DENVER, CO 80202

RE: MAGNUM 1-36-25H
 SWSW 36-153N-101W
 MCKENZIE COUNTY
 WELL FILE NO. 22247

Dear Khem:

After reviewing the Cement Bond Log run on the above referenced well March 22, 2012, it has been determined remedial cement work will be required. The top of cement behind the 7 inch casing string as picked from the Cement Bond Log is at a depth of 8587 feet. The North Dakota Administrative Code Section 43-02-03-21 requires that sufficient cement be used to isolate above the upper most sand within the Dakota Group.

We are concerned that the PERMIAN-ERODED BROOM CREEK-AMSDEN FM. - 7714', PERMIAN-MINNEKAHTA FM. - 7428', and the CRETACEOUS-NEWCASTLE FM. - 5284' are not isolated with cement. **SLAWSON EXPLORATION must submit a Form 4 Sundry, detailing SLAWSON EXPLORATION's plans for this remedial cement work, and receive NDIC approval.** Until a sundry notice is approved and the remedial work is completed, the stipulations below must be followed:

1. The surface - production casing annulus must be continuously monitored with an accurate pressure gauge, the pressure gauge must not be any higher than a 300-psi gauge.
2. All valves installed on the annulus must be exposed to the surface; burial will be allowed only in the presence of an NDIC Oil and Gas Division Inspector.
3. Any pressure development on the annulus must be immediately reported to the Oil and Gas Division.

If you have any questions, do not hesitate to contact me.

Sincerely,

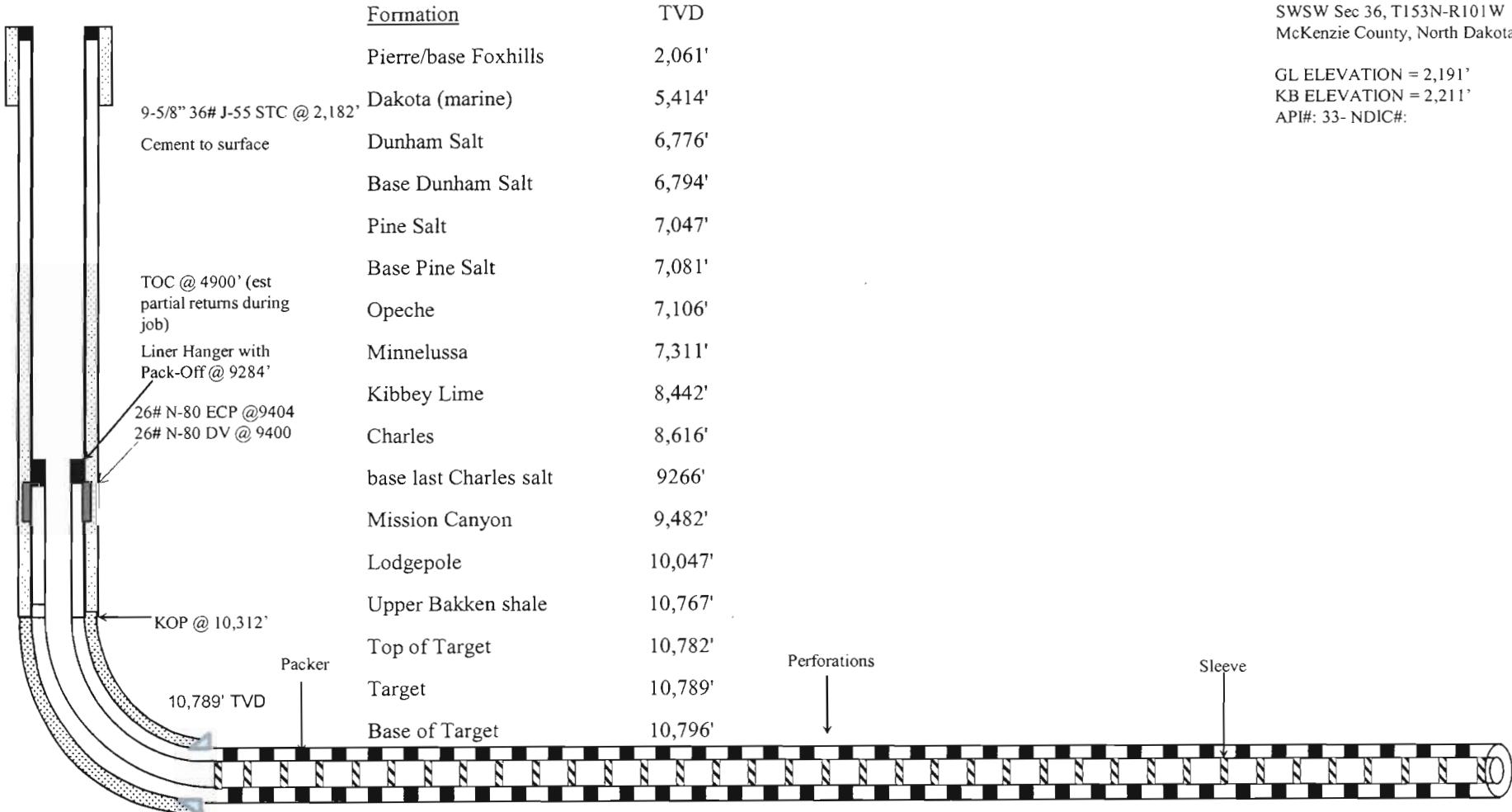
Richard A. Stuggs
Geologist

mlb/ras

#22247



WELLBORE DIAGRAM
Magnum #1-36-25H



7"	29# P-110 from	Surface	to	6,626'
7"	32# P-110 from	6,626'	to	9,596'
7"	29# P-110 from	9,596'	to	11,529'

11,416' of 4-1/2" 11.6# P-110 liner with 32 packers, 32 sleeves and a liner hanger with pack-off (992' of tools). Set Liner at 20,700'

Lateral TD @ 20,730' MD,
10,692' TVD



Slawson Exploration

Cement Summary

Well Name: Magnum 1-36-25H Spud Date: 8-Feb-2012 Hole Depth: 11,544'

State: ND County: McKenzie Section: 36 Township: 153N Range: 101W

Mud Type: Invert MW: 10.0 Visc: 48 PV: 13 YP: 10 Time Cir. (Hr):

Casing Data (From Bottom to Top)

#	Size	Wt	Grade	Coupling	Setting Depth	Hole Size	Hole Depth	T.D. Date
1	<u>7</u>	29	P110	LTC	11,529	8.75	11,544	2/19/2012
2	<u>7</u>	32	P110	LTC	9,597			
3	<u>7</u>	29	P110	LTC	6670.5			
4								

Reciprocate Casing (Y/N): Distance: Returns: Full Time Circulated:

Description	Type	SX	WGT PPG	Yield	Water GPS	CuFt	Bbl	Calculated Pump Time	Actual Pump Time
scavenger	PLC	286	11.0	3.45	21.03	986.7			
Additives Premium Lite Cement + 8% bwoc Bentonite + 3% bwo Potassium Chloride + 0.6% bwoc FL-52 + 0.3% bwoc Sodium Metasilicate + 0.25 lbs/sack Cello Flake + 0.5% bwoc R-3 + 3 lbs/sack Kol-Seal + 5 lbs/sack CSE-2 + 0.08% bwoc Static Free									
Stage 2 lead	PLC	387	12.0	2.47	13.73	955.9			
Additives Premium Lite Cement + 5 lbs/sack CSE- 2 + 8% bwoc Bentonite II + 3% bwo Potassium Chloride + 0.6% bwoc FL-52 + 0.3% bwoc Sodium Metasilicate + 0.25 lbs/sack Cello Flake + 0.5% bwoc R-3 + 0.08% bwoc Static Free + 3 lbs/sack Kol-Seal									
Stage 2 tail	Class G	48	16	1.15	4.54	55.2		0:00	0:00
Additives 48 sacks Class G Cement + 3% bwo Potassium Chloride + 0.8% bwoc FL-25 + 0.3% bwoc Sodium Metasilicate + 0.25 lbs/sack Cello Flake + 0.4% bwoc R-3 + 3 lbs/sack Kol-Seal + 0.08% bwoc Static Free									
Stage 1	Class G	324	15.6	1.6	6.35	518.4		3.5	0:00
Additives Class G Cement + 0.08% bwoc Static Free + 0.4% bwoc R-3 + 3% bwo Potassium Chloride + 0.25 lbs/sack Cello Flake + 3 lbs/sack Kol-Seal + 0.8% bwoc FL-25 + 0.3% bwoc Sodium Metasilicate + 35% bwoc Silica Flour									

Cementing Company: Baker hughes Bump Plug: y Pressure: 1035

Time (Plug Down): 0:00 Float Held: y Top Job: n SX N/A of

Cement to Surface: n Volume (Bbl): Estimated Top: unknown

Comments



#22247

Proposal No: 815150005C

**SLAWSON EXPLORATION CO INC
MAGNUM #1-36-25H**

API # 33-053-03943-0000
BAKER Field
36-153N-101W
McKenzie County, North Dakota
February 18, 2012

Cement Report

Prepared for:

Ned Shifflet
Slawson Exploration

Prepared by:

TIMOTHY A SCHNEIDER
District Technical Supervisor

Service Point:

BJS, DICKINSON
Bus Phone: 701-2253814
Fax: 701-225-3815

Service Representatives:

Dave Hencke
Senior Account Manager

Joe Kelly
Senior District Sales Supv.

Powered by

PowerVision

CEMENT JOB REPORT



CL STOMER	SLAWSON EXPLORATION CO		DATE	21-FEB-12	F.R. #	796910022	SERV. SUPV.	DAVID W MCCORMICK						
LEASE & WELL NAME			LOCATION				COUNTY-PARISH-BLOCK McKenzie North Dakota							
MAGNUM #1-36-25H - API 33053039430000			36-153N-101W											
DISTRICT			DRILLING CONTRACTOR RIG #			TYPE OF JOB Intermediate								
Dickinson			NABORS 419											
SIZE & TYPE OF PLUGS		LIST-CSG-HARDWARE		MECHANICAL BARRIERS		MD	TVD	HANGER TYPES	MD	TVD				
		Float Collar, Al Flap, 7 - 8rd												
		Float Shoe, 7 - 8rd												
		Centralizer, with Fins, 7 in												
		Stop Collar, 7 in												
		Thread Locking Compound												
MATERIALS FURNISHED BY BJ				LAB REPORT NO.		PHYSICAL SLURRY PROPERTIES								
						SACKS OF CEMENT	SLURRY WGT PPG	SLURRY YLD FT ³	WATER GPS	PUMP TIME HR:MIN	Bbl SLURRY	Bbl MIX WATER		
Gr.08%SF+.5%R3+3%KCL+.25#/skCF+3#/skKS+.8%F						292	15.4	1.64	6.68	04:30	85.3	46.44		
OIL BASED MUD							10					410.8		
Sealbond Spacer							8.34					20		
Inhibited Brine							9.8					20		
Clean Brine							9.8					50		
Fresh Water Spacer							8.34					5		
Pl.C+.08%SF+.5%R3+3%KCL+.25#/skCF+3#/skKS+.6%						286	11	3.45	21.03		175.7	143.05		
Pl.C+.08%SF+.5%R3+3%KCL+.25#/skCF+3#/skKS+.6						387	12	2.47	13.73		170.2	126.63		
"C" TAIL+.08%SF+.4%R3+3%KCL+.25#/skCF+3#/skKS						48	16	1.15	4.54		9.8	5.17		
FRESH WATER							8.34					20		
BRINE WATER							9.8					336		
Available Mix Water		600	Bbl.	Available Displ. Fluid		800	Bbl.	TOTAL		1302.8	321.29			
HOLE			TBG-CSG-D.P.						COLLAR DEPTHS					
SIZE	% EXCESS	DEPTH	ID	OD	WGT.	TYPE	MD	TVD	GRADE	SHOE	FLOAT	STAGE		
9	30	11566	6.184	7	32	CSG	243	243	P-110	11535	11442.11	9418		
			6.094	7	29	CSG	6796	6796	P-110					
			6.184	7	29	CSG	11535	10788	P-110					
LAST CASING			PKR-CMT RET-BR PL-LINER			PERF. DEPTH		TOP CONN		WELL FLUID				
ID	OD	WGT.	TYPE	MD	TVD	BRAND & TYPE		DEPTH	TOP	BTM	SIZE	THREAD	TYPE	WGT.
89	9.63	36	CSG	2137	2137	NO PACKER		0	0	0	7	8RD	OIL BASED MU	10
DISPL. VOLUME		DISPL. FLUID		CAL. PSI	CAL. MAX PSI	OP. MAX	MAX TBG PSI		MAX CSG PSI		MIX WATER			
VOLUME	UOM	TYPE	WGT.	BUMP PLUG	TO REV.	SQ. PSI	RATED	Operator	RATED	Operator				
420.8	BBLS	OIL BASED MUD	10	0	0	0	0	0	11220	8976	RIG TANKS			
Circulation Prior to Job														
Circulated Well: Rig <input checked="" type="checkbox"/> BJ <input type="checkbox"/>				Circulation Time: 1				Circulation Rate: 5 BPM						
Mud Density In: 10 LBS/GAL				Mud Density Out: 10 LBS/GAL				PV & YP Mud In: 13						
Gas Present: NO <input type="checkbox"/> YES <input checked="" type="checkbox"/>				Units: 0				Solids Present at End of Circulation: NO <input checked="" type="checkbox"/> YES <input type="checkbox"/>						
Displacement And Mud Removal														
Displaced By: Rig <input type="checkbox"/> BJ <input checked="" type="checkbox"/>				Amount Bled Back After Job: 0 BBLS										
Returns During Job: <input type="checkbox"/> NONE <input checked="" type="checkbox"/> PARTIAL <input type="checkbox"/> FULL				Method Used to Verify Returns: VISUAL										
Cement Returns at Surface: <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO				Were Returns Planned at Surface: <input checked="" type="checkbox"/> NO <input type="checkbox"/> YES <input type="checkbox"/>										
Pipe Movement: <input type="checkbox"/> ROTATION <input type="checkbox"/> RECIPROCACTION <input type="checkbox"/> NONE <input type="checkbox"/> UNABLE DUE TO STUCK PIPE														
Centralizers: <input type="checkbox"/> NO <input checked="" type="checkbox"/> YES				Quantity: 20				Type: <input type="checkbox"/> BOW <input type="checkbox"/> RIGID						
Job Pumped Through: <input type="checkbox"/> CHOKE MANIFOLD <input type="checkbox"/> SQUEEZE MANIFOLD <input checked="" type="checkbox"/> MANIFOLD <input type="checkbox"/> NO MANIFOLD														
EXPLANATION: TROUBLE SETTING TOOL, RUNNING CSG, ETC. PRIOR TO CEMENTING:														

CEMENT JOB REPORT



Plugs

Number of Attempts by BJ:	Competition:	Wiper Balls Used: <input checked="" type="checkbox"/> NO <input type="checkbox"/> YES Quantity:
Plug Catcher Used:	<input type="checkbox"/> NO <input checked="" type="checkbox"/> YES	Parabow Used: <input checked="" type="checkbox"/> NO <input type="checkbox"/> YES
Was There a Bottom:	<input checked="" type="checkbox"/> NO <input type="checkbox"/> YES	Top of Plug: FT Bottom of Plug: FT

Squeezes (Update Original Treatment Report for Primary Job)

BLOCK SQUEEZE <input type="checkbox"/>	SHOE SQUEEZE <input type="checkbox"/>	TOP OF LINER SQUEEZE <input type="checkbox"/>	PLANNED <input type="checkbox"/>	UNPLANNED <input type="checkbox"/>
Liner Packer: <input checked="" type="checkbox"/> NO <input type="checkbox"/> YES	Bond Log: <input checked="" type="checkbox"/> NO <input type="checkbox"/> YES	PSI Applied:	Fluid Weight:	LBS/GAL

Casing Test (Update Original Treatment Report for Primary Job)

Casing Test Pressure:	PSI	With	LBS/GAL	Mud	Time Held:	Hours	Minutes
-----------------------	-----	------	---------	-----	------------	-------	---------

Shoe Test (Update Original Treatment Report for Primary Job)

Depth Drilled out of Shoe: FT	Target EMW: LBS/GAL	Actual EMW: LBS/GAL
Number of Times Tests Conducted:	Mud Weight When Test was Conducted: LBS/GAL	

Problems Before Job (I.E. Running Casing, Circulating Well, ETC)

HAD LOST CIRULATION PROBLEM BEFORE WE STARTED CEMENT JOB. COMPANY MAN DID NOT WANT TO CIRULATE WELL BEFORE WE DID CEMENT JOB. WE LOST ABOUT 100 bbls OF OIL BASED MUD ON FIRST STAGE. WHEN WE HAD TO SET THE ECP THE ECP DID NOT INFLATE LIKE IT SHOULD HAVE, WE TRIED THIS THREE TIMES AND THE TOOL HAD FROM SAID LETS PRESSURE UP AND OPEN DV TOOL. DV TOOL OPEN JUST FINE.

Problems During Job (I.E. Lost Returns, Equipment Failure, Bulk Delivery, Foaming, ETC)

WE PARTIAL RETURNS DURING BOTH CEMENT JOBS. WE LOST ABOUT 300 bbls OF OIL BASED MUD DURING CEMENT JOB. WE LOST 00 bbls ON FIRST STAGE, AND LOST ABOUT 200 bbls DURING SECOND STAGE.

Problems After Job (I.E. Gas at Surface, Float Equipment Failed, ETC)

NONE.

TIME HR:MIN.	PRESSURE/RATE DETAIL			EXPLANATION		
	PIPE	PRESSURE - PSI ANNULUS	RATE BPM	BBL. FLUID PUMPED	FLUID TYPE	SAFETY MEETING: BJ CREW <input checked="" type="checkbox"/> CO. REP. <input type="checkbox"/> TEST LINES 5000 PSI CIRCULATING WELL - RIG <input checked="" type="checkbox"/> BJ <input type="checkbox"/>
14:30	0	0	0	0	0	ARRIVE ON LOCATION
15:00	0	0	0	0	0	PRE-RIG UP SAFETY MEETING
16:00	0	0	0	0	0	READY TO SERVICE
21:00	0	0	0	0	0	PRE-JOB SAFETY MEETING
21:30	0	0	0	0	0	STAB CEMENT HEAD
21:48	5000	0	0	0	H2O	TEST LINES
21:50	211	0	2.4	20	H2O	SALT WATER SPACER
22:00	211	0	1.2	20	H2O	SEAL BOND SPACER
22:15	240	0	4	85.3	CMT	292 sks OF CMT SLURRY @ 15.2#
23:02	0	0	0	0	0	SHUT DOWN DROP DART
23:09	160	0	4.8	10	H2O	FRESH WATER DISPLACEMENT
23:30	230	0	5.4	100	MUD	OIL BASED MUD DISPLACEMENT
23:56	265	0	5.6	100	MUD	OIL BASED MUD DISPLACEMENT
00:20	290	0	6	100	MUD	OIL BASED MUD DISPLACEMENT
00:25	171	0	3.1	31	MUD	SLOW DOWN FOR DART TO GO THROUGH DV TOOL (ECP TOOL)
00:28	481	0	5.1	10	MUD	PICK UP DISPLACEMENT RATE/OIL BASED MUD DISPLACEMENT
00:43	676	0	3.6	69.8	MUD	OIL BASED MUD DISPLACEMENT
00:46	615	0	2.4	10	MUD	SLOW LAST 10bbls DOWN
00:50	821	0	0	0	0	BUMP DART
00:52	0	0	0	0	0	TEST FLOATS/ FLOATS HELD
00:55	1200	0	1.6	3	MUD	PRESSURE UP TO SET PACKER/DID NOT INFLATE
00:57	0	0	0	0	0	BLEED OFF PRESSURE
00:59	1400	0	1.6	3	MUD	PRESSURE UP TO SET PACKER/DID NOT INFLATE
01:01	0	0	0	0	0	BLEED OF PRESSURE AGAIN

CEMENT JOB REPORT



PRESSURE/RATE DETAIL					EXPLANATION		
TIME HR:MIN.	PRESSURE - PSI		RATE BPM	BBL. FLUID PUMPED	FLUID TYPE	SAFETY MEETING: BJ CREW <input checked="" type="checkbox"/> CO. REP. <input type="checkbox"/>	
	PIPE	ANNULUS				TEST LINES 5000 PSI	
						CIRCULATING WELL - RIG <input checked="" type="checkbox"/> BJ <input type="checkbox"/>	
01:03	1700	0	1.6	3	MUD	PRESSURE UP TO SET PACKER/DID NOT INFLATE	
01:05	0	0	0	0	0	BLEED OFF PRESSURE AGAIN	
01:07	2370	0	1.3	3	MUD	OPEN DV TOOL/ECP	
01:10	0	0	0	0	0	SHUT DOWN TURN OVER TO RIG TO CIRULATE OUT CEMENT ABOVE DV TOOL/ECP TOOL	
						DID NOT GET ANY CEMENT ABOVE DV TOOL FOR FIRST STAGE	
01:22	0	0	0	0	0	PRE-JOB SAFETY MEETING	
01:50	415	0	5.6	50	H2O	SALT WATER SPACER	
01:54	410	0	4.8	5	H2O	FRESH WATER SPACER	
01:55	545	0	2.5	175.7	SCAVENGE	286 sks OF SCAVENGER SLURRY @ 11#	
03:00	408	0	4.8	170.2	LEAD	387 sks OF LEAD SLURRY @ 12#	
03:45	360	0	4.8	9.8	TAIL	48 sks OF TAIL SLURRY @ 16#	
03:49	0	0	0	0	0	SHUT DOWN DROP WIPER PLUG	
03:55	102	0	6	10	H2O	FRESH WATER DISPLACEMENT	
04:05	154	0	6	100	H2O	SALT WATER DISPLACEMENT	
04:20	160	0	6	100	H2O	SALT WATER DISPLACEMENT	
04:30	177	0	6	50	H2O	SALT WATER DISPLACEMENT	
04:37	302	0	6	50	H2O	SALT WATER DISPLACEMENT	
04:48	307	0	6	26	H2O	SALT WATER DISPLACEMENT	
04:55	307	0	2	10	H2O	SALT WATER DISPLACEMENT	
05:03	1827	0	0	0	0	BUMP PLUG	
05:05	1907	0	0	0	0	CLOSED DV TOOL	
05:10	0	0	0	0	0	RIG DOWN MEETING	
05:30	0	0	0	0	0	TURNED OVER TO RIG	
						DID NOT RECIEVE ANY SPACERS OR CEMENT BACK TO SURFACE	
BUMPED PLUG	PSI TO BUMP PLUG	TEST FLOAT EQUIP.	BBL.CMT RETURNS/ REVERSED	TOTAL BBL. PUMPED	PSI LEFT ON CSG	SPOT TOP OUT CEMENT	Service Supervisor Signature:
[Y] N 1827	[Y] N 0			994.1	0	Y [N]	

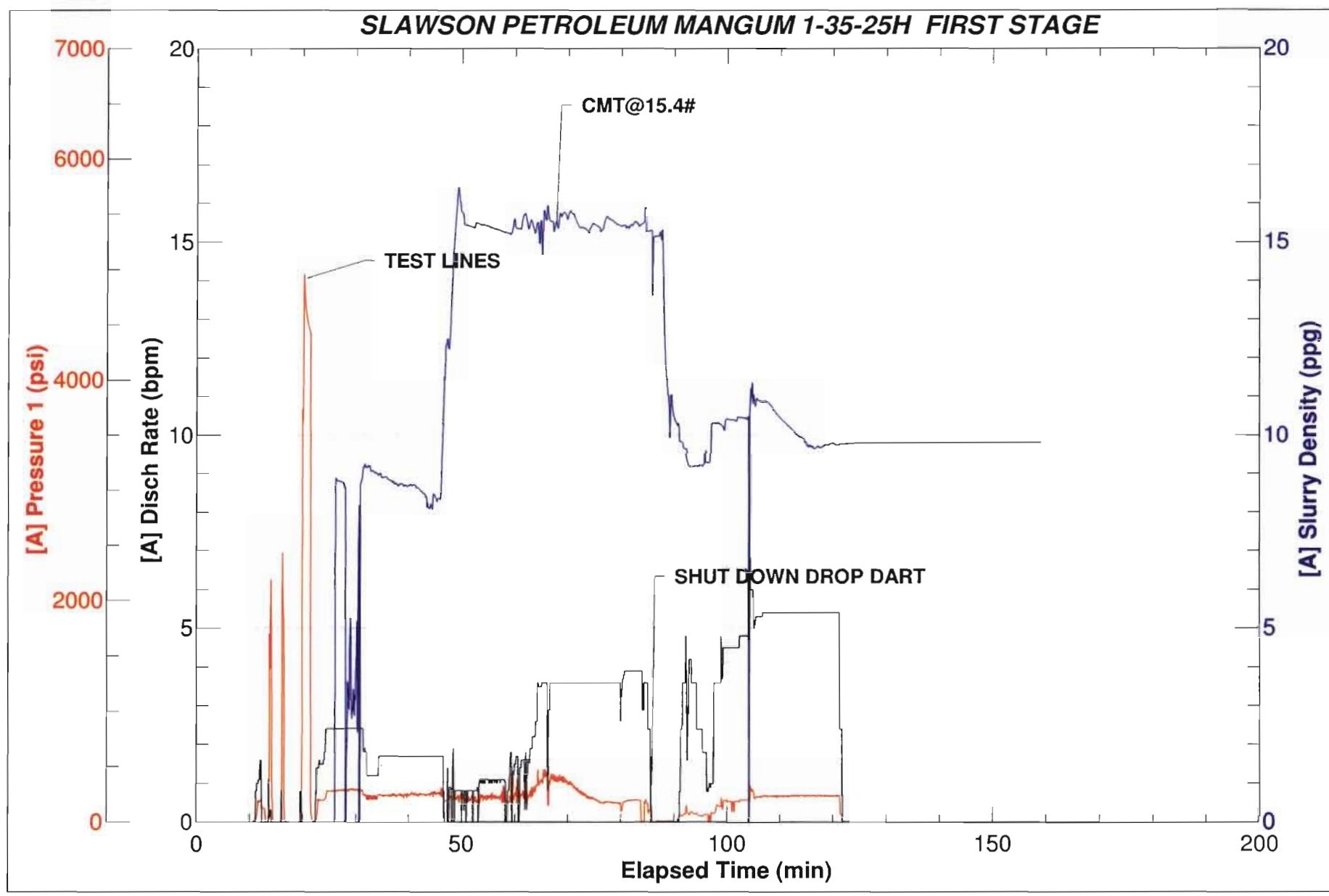


BJ Services JobMaster Program Version 3.50

Job Number: 796910022

Customer: SLAWSON PETROLEUM

Well Name: MAGNUM #1-35-25H



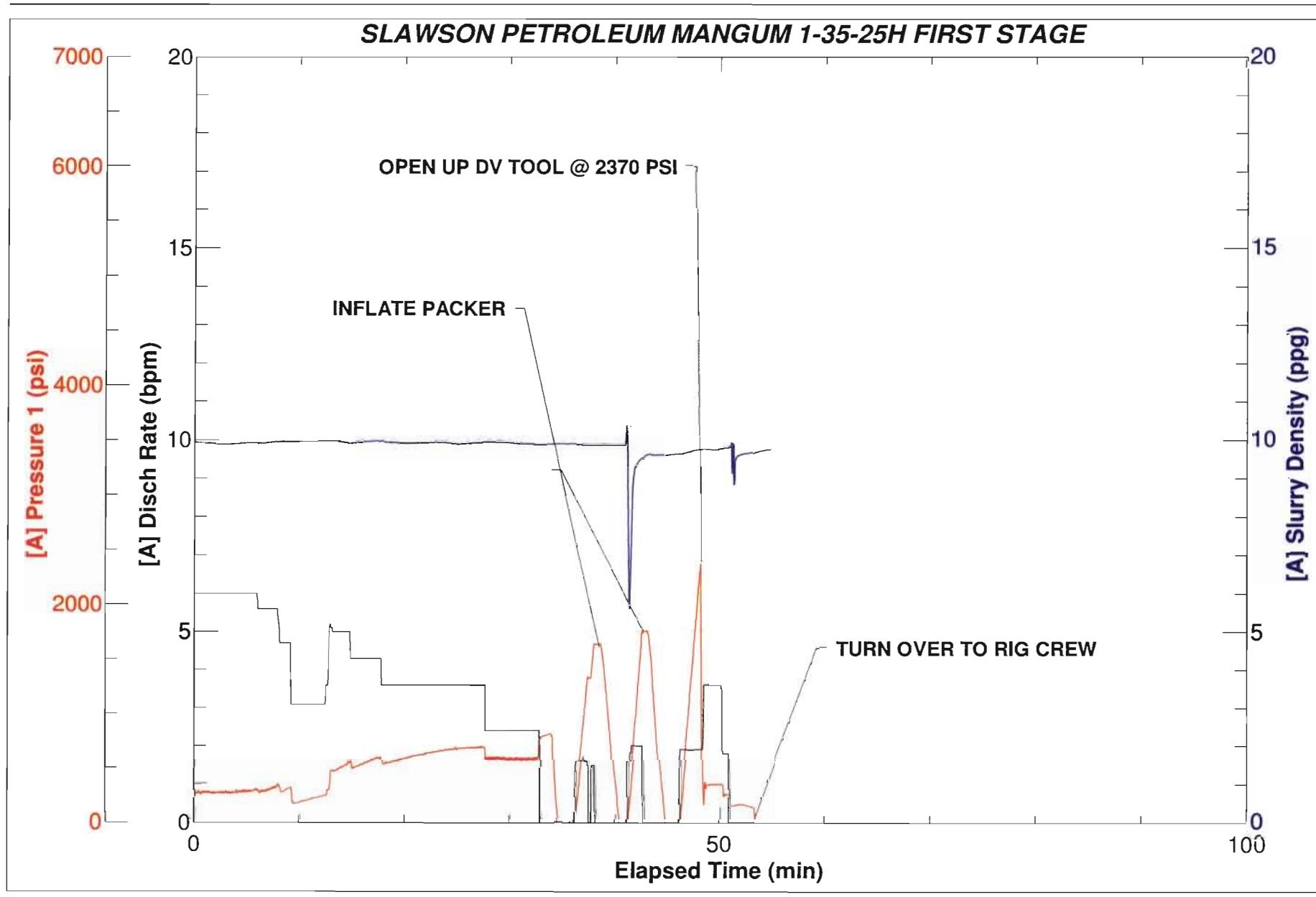


BJ Services JobMaster Program Version 3.50

Job Number: 796910022

Customer: SLAWSON PETROLEUM

Well Name: MAGNUM #1-35-25H



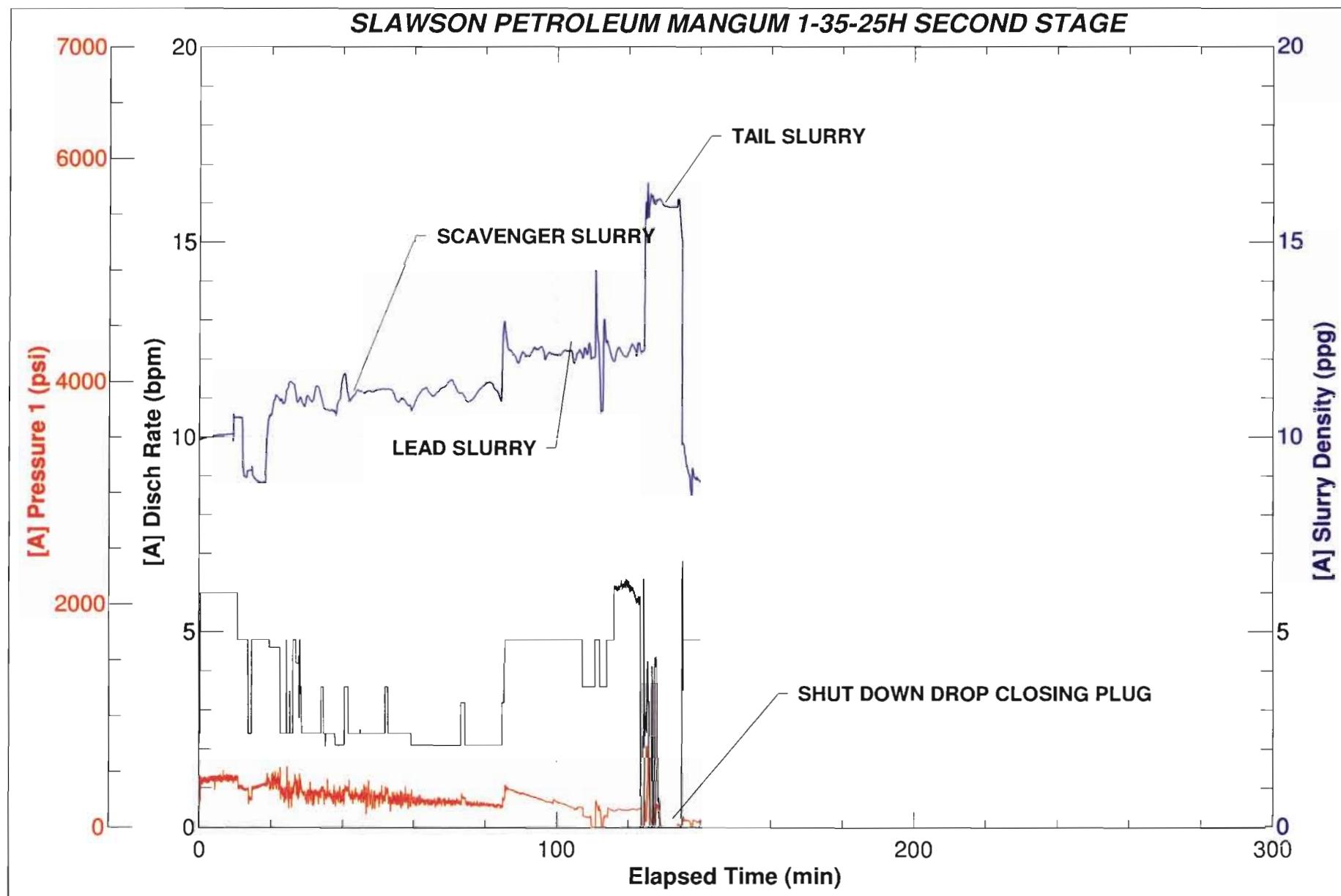


BJ Services JobMaster Program Version 3.50

Job Number: 796910022

Customer: SLAWSON PETROLEUM

Well Name: MAGNUM #1-35-25H



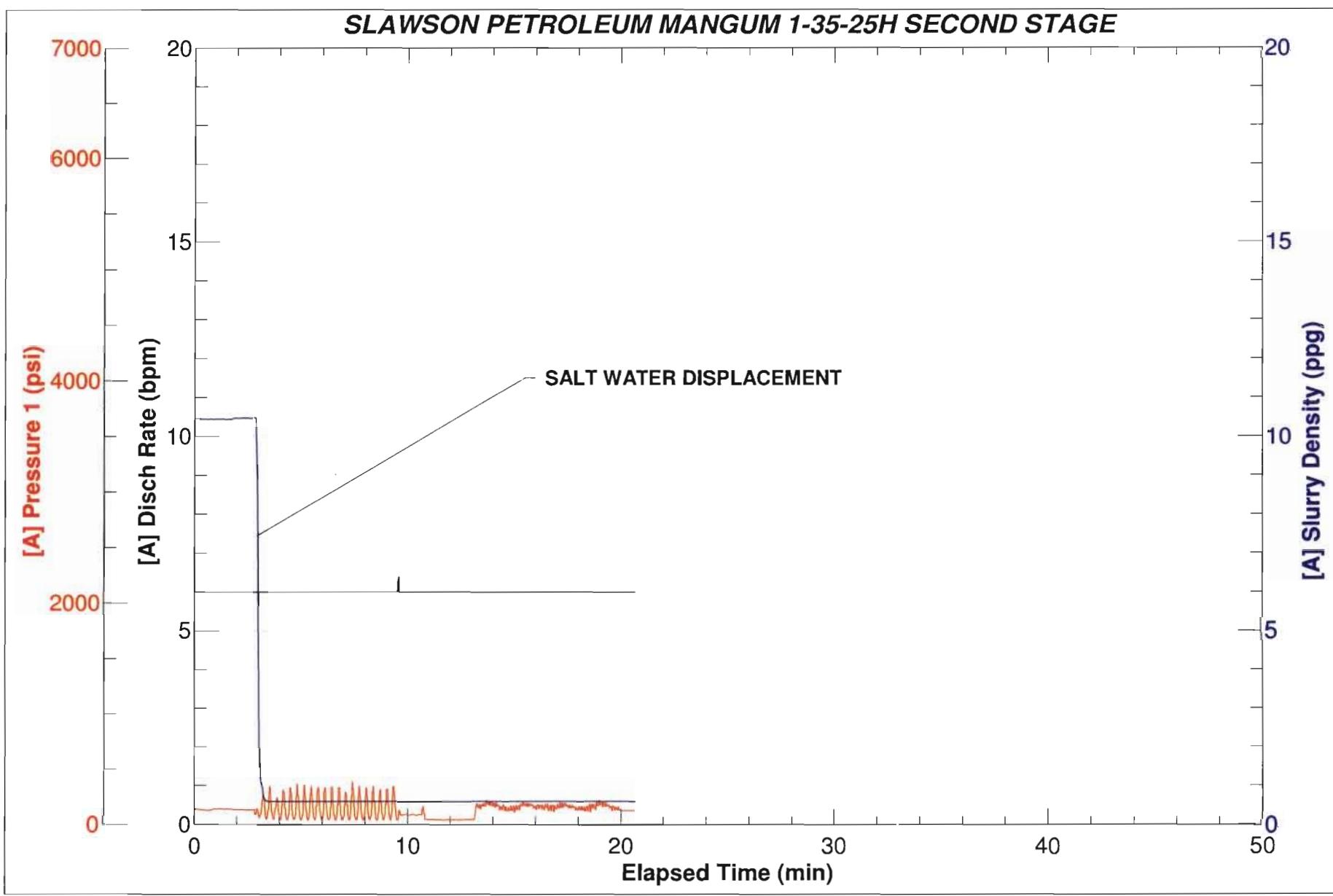


BJ Services JobMaster Program Version 3.50

Job Number: 796910022

Customer: SLAWSON PETROLEUM

Well Name: MAGNUM #1-35-25H



Indicator	Performance	
1. Did we pump the job as designed/requested?	<input type="radio"/> Yes	No
2. Were the proper prejob and postjob QC tests performed?	<input type="radio"/> Yes	No
3. Were we ready to pump when specified?	<input type="radio"/> Yes	No
4. Did we conduct a thorough and timely prejob and postjob review with you?	<input type="radio"/> Yes	No
5. Do you feel this job was performed in a safe manner?	<input type="radio"/> Yes	No
6. Was the performance and appearance of our personnel professional?	<input type="radio"/> Yes	No
7. Did our products satisfy your requirements?	<input type="radio"/> Yes	No
8. Were you satisfied with our equipment performance and appearance?	<input type="radio"/> Yes	No

Comments/What can we do to improve the next job?:

BILL KINDEND

Would you like someone from our company to contact you regarding
any of your concerns?

Yes No

Report Print on: 22-FEB-12 01:09 PM

Quality Improvement



PLEASE PRINT

Field Receipt No.: 796910022 Date: 02-21-12

Customer Name: SLAWSON EXPLORATION CO IN

Well Name: MAGNUM #1-36-25H

District: Dickinson

INTERNAL JOB EVALUATION

Indicator	Performance Standards		
1. Pumped Job On Time?	<input checked="" type="radio"/> MS		DM
2. Zero Hotshots Required?	<input checked="" type="radio"/> MS		DM
3. High Pressure Lines Tested?	<input checked="" type="radio"/> MS		DM
4. Safety Meeting & Discuss Safety Requirements?	<input checked="" type="radio"/> MS		DM
5. Pumped According to Design?	<input checked="" type="radio"/> MS	PM	DM
6. Job Parameters Recorded?	<input checked="" type="radio"/> MS		DM
7. Product Performance?	<input checked="" type="radio"/> MS	PM	DM
8. Equipment Performance?	MS	<input checked="" type="radio"/> PM	DM
9. Instrumentation Performance?	<input checked="" type="radio"/> MS	PM	DM
10. Personnel Performance?	<input checked="" type="radio"/> MS		DM
11. Any Unsafe Acts or Conditions?	<input checked="" type="radio"/> MS		DM
12. Job Site Cleaned?	<input checked="" type="radio"/> MS		DM

MS - Met Standard
PM - Partially Met Standard
DM - Did Not Meet Standard

Comments:
MICROMOTION NOT WORKING IN BATCH

Please mark all problems which occurred during this job/operation. List problem products, units, and instruments to the left of the problem.

A. RTS Performance	Product Code(s)	Q. Product Performance	Problem Unit(s)	P. Equip. Performance. (Cont.)
01 Under 1 Hour Late _____		01 Wrong Additive/Not Used		32 Pressure Relief Valve
02 1-4 Hours Late # Hrs. _____		02 Contaminated Water		33 Conveyor Assembly
03 Over 4 Hours Late # Hrs. _____		03 Contamination		34 Other _____
Cause:		04 Defective Material		
04 Borrowed Equip/Labor Late		05 Freezing		
05 Delay on Prior Job		06 Incorrect Base Material		E. Instrumentation Performance
06 District Personnel Late on Yard		07 Incorrect Mixture		01 3305 Mini Monitor
07 Equipment Failure on Location		08 PH		02 3600/Isoplex 36 Hardware
08 Equipment Failure on Way to Location		09 Viscosity		03 Isoplex Hardware
09 Equipment Failure on Yard		10 Other _____		04 Microplex Hardware
10 Hotshot Trip		P. Equipment Performance		05 Monitor Setup or Operation
11 Lost Way to Location	c989.	01 Fluid End		06 Computer
12 Outside Service Late		02 Suction/Disch. Manifold		07 Monitor/LCD Display
13 Poor Communications		03 Packing		08 JobMaster Software
14 Products Problem		04 Valves		09 JFrac/Frac RT Software
15 Road/Location Conditions		05 Plunger		10 JSend
16 Wait on Customer Rep		06 Pump Engine		11 Satellite/Modem/Data Line
17 Other _____		07 Hydraulics		12 LAN/Wireless LAN
O. Job Procedure		08 Power End		13 Printer
01 Cemented Csg/Tbg		09 Supercharge/Mix Pump		14 Overhead Display
02 HP/Rate Requirements		10 Road Transmission		15 Cable/Connector
03 Improper Slurry Density		11 Vaporizer		16 Pressure Transducer
04 Job Interruption		12 Cold End/Warm End		17 Densimeter
05 No Returns		13 Agitator		18 Flow Meter/Encoder/Mag PU
06 Plug Not Bumped		14 Chemical Pump		19 Viscometer/pH Probe/Temp
07 Screenout		15 Dry Chemical Feeder		20 Controller Setup or Operation
08 Sand Total Wrong		16 Chassis Electrical		21 ACC-II Hardware
09 Fluid or Additive Total Wrong		17 Road Engine		22 UCM/MCM/Pendant Hardware
10 Other _____		18 Hydraulic/Air Hose		23 UEC or Pume Controls
Cause:		19 Air Valve(s)		24 Remote Control or Display
11 Insufficient training		20 Cement Mixing System		25 UPS/Inverter/Generator
12 Inadequate job design		21 Blender Controls		26 Headsets/Radios
13 Insufficient Material		22 Sand Screws		27 Other _____
14 Product Failure		23 Suction/Discharge Pump		
15 Capabilities Exceeded		24 Deck Transmission		
16 Other _____		25 Tub Level		
17 Component Failure		26 Ball Injector		
18 Human Error		27 Blower/Compressor		
		28 Pump Controls		
		29 Cement Head		
		30 Frac Head		
		31 Failed Line/Connection		

PLEASE PRINT

Field Receipt No.: 796910022 Date: 02-21-12

Customer Name: SLAWSON EXPLORATION CO IN

Well Name: MAGNUM #1-36-25H

District: Dickinson

If product failure, list the trade name of the fluid used. Forward complete description, samples, and test data as per Field procedures manual to BJ Services Research, Technical Lab Services.

Report Print on 22-FEB-12 01:09 PM

Service Supervisor: _____ District Manager: _____

Jr7311a

Load Sheet



DISTRICT Dickinson

WELL NAME MAGNUM #1-36-25H

DISPATCH SHEET NO.

CUSTOMER SLAWSON EXPLORATION CO INC

BRANCH BULK PLANT BJS, DICKINSON

FIELD RECEIPT NO 796910022

JOB DATE FEB-20-2012

QUANTITY

ISSUED BY

ISSUED BY LOYCE E WHITE DATE FEB-20-2012

RECEIVED TO LOCATION DAVID MCCORICK DATE FEB-20-2012

SERVICE SUPERVISOR

RETURNS VERIFIED BY _____ **DATE** _____

APPROVAL DEON D LEREW

OPERATIONS SUPERVISOR

CONFIDENTIAL - B.I SERVICES INTERNAL ONLY

RECEIVED

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Prerequisite class _____

30 III Rutherford

W _____

Watermark Background

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31. What is the capital of France?

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170

COMMISSION

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FIELD RECEIPT NO. 796910022



CUSTOMER SLAWSON EXPLORATION CO INC				CREDIT APPROVAL NO.	PURCHASE ORDER NO.		CUSTOMER NUMBER 20081002 - 00257645		INVOICE NUMBER
MAIL INVOICE TO : STREET OR BOX NUMBER 1675 BROADWAY, SUITE 1600				CITY DENVER	STATE Colorado	ZIP CODE 80202-4675			
DATE WORK COMPLETED	MO. 02	DAY 21	YEAR 2012	BHI REPRESENTATIVE DAVID W MCCORMICK	WELL API NO: 33053039430000	WELL TYPE : New Well			
DISTRICT BJS, DICKINSON				JOB DEPTH(ft) 11,535	WELL CLASS : Oil				
WELL NAME AND NUMBER MAGNUM #1-36-25H				TD WELL DEPTH(ft) 11,544	GAS USED ON JOB : No Gas				
WELL LOCATION :	LEGAL DESCRIPTION 36-153N-101W		COUNTY/PARISH Mckenzie	STATE North Dakota	JOB TYPE CODE : Intermediate				
PRODUCT CODE	DESCRIPTION			UNIT OF MEASURE	QUANTITY	LIST PRICE UNIT	GROSS AMOUNT	% DISC.	NET AMOUNT
100021	Class G Cement			sacks	340	34.500	11,730.00	65%	4,105.50
100114	Potassium Chloride			lbs	3379	1.900	6,420.10	65%	2,247.04
100120	Bentonite			lbs	1991	0.500	995.50	65%	348.43
100121	Silica Flour			lbs	9607	0.530	5,091.71	65%	1,782.10
100275	Sodium Metasilicate			lbs	245	3.900	955.50	65%	334.43
100283	R-3			lbs	457	3.490	1,594.93	65%	558.23
100295	Cello Flake			lbs	254	4.850	1,231.90	65%	431.17
398224	Premium Lite Cement			sacks	673	30.800	20,728.40	65%	7,254.94
398416	SealBond Spacer (w/ 30lb pail)			bbls	20	264.000	5,280.00	65%	1,848.00
422547	FL-52A			lbs	454	25.600	11,622.40	65%	4,067.84
424509	FP-13L			gals	10	178.500	1,785.00	65%	624.75
488167	FL-25			lbs	256	21.500	5,504.00	65%	1,926.40
488353	CSE-2			lbs	3365	1.610	5,417.65	65%	1,896.18
488449	Bentonite II			lbs	2694	0.410	1,104.54	65%	386.59
488521	SealBond Plus			lbs	315	4.500	1,417.50	65%	496.13
499634	Kol-Seal			lbs	3039	1.130	3,434.07	65%	1,201.92
499680	Static Free			lbs	73	38.700	2,825.10	65%	988.79
ARRIVE LOCATION :	MO. 02	DAY 20	YEAR 2012	TIME 14:30	SERVICE ORDER: I AUTHORIZE WORK TO BEGIN PER SERVICE INSTRUCTIONS IN ACCORDANCE WITH THE TERMS AND CONDITIONS PRINTED ON THE LAST PAGE OF THIS FORM AND REPRESENT THAT I HAVE AUTHORITY TO ACCEPT AND SIGN THIS ORDER.			SERVICE RECEIPT: I CERTIFY THAT THE MATERIALS AND SERVICES LISTED WERE RECEIVED AND ALL SERVICES PERFORMED IN A WORKMANLIKE MANNER.	
CUSTOMER REP. BILL KINDEND					CUSTOMER AUTHORIZED AGENT			CUSTOMER AUTHORIZED AGENT X	
SEE LAST PAGE FOR GENERAL TERMS AND CONDITIONS					CUSTOMER AUTHORIZED AGENT			BHI APPROVED X	



FIELD RECEIPT NO. 796910022

CUSTOMER SLAWSON EXPLORATION CO INC				CREDIT APPROVAL NO.	PURCHASE ORDER NO.	CUSTOMER NUMBER 20081002 - 00257645		INVOICE NUMBER	
MAIL INVOICE TO : STREET OR BOX NUMBER 1675 BROADWAY, SUITE 1600				CITY DENVER	STATE Colorado	ZIP CODE 80202-4675			
DATE WORK COMPLETED	MO. 02	DAY 21	YEAR 2012	BHI REPRESENTATIVE DAVID W MCCORMICK	WELL API NO: 33053039430000	WELL TYPE : New Well			
DISTRICT BJS, DICKINSON				JOB DEPTH(ft) 11,535	WELL CLASS : Oil				
WELL NAME AND NUMBER MAGNUM #1-36-25H				TD WELL DEPTH(ft) 11,544	GAS USED ON JOB : No Gas				
WELL LOCATION :	LEGAL DESCRIPTION 36-153N-101W			COUNTY/PARISH Mckenzie	STATE North Dakota	JOB TYPE CODE : Intermediate			
PRODUCT CODE	DESCRIPTION			UNIT OF MEASURE	QUANTITY	LIST PRICE UNIT	GROSS AMOUNT	% DISC.	NET AMOUNT
	SUB-TOTAL FOR Product Material						87,138.30	65.00%	30,498.44
A152	Personnel Per Diem Chrg - Cement Svc			ea	2	161.500	323.00	0%	323.00
M100	Bulk Materials Service Charge			cu ft	1622	4.170	6,763.74	65%	2,367.31
R798	Automatic Density System			job	1	1,530.000	1,530.00	65%	535.50
	SUB-TOTAL FOR Service Charges						8,616.74	62.56%	3,225.81
F075A	Cement Pumping, 11001 - 12000 ft			8hrs	1	17,450.000	17,450.00	65%	6,107.50
F088	Cement Pumping, Additional hrs			hrs	6	750.000	4,500.00	65%	1,575.00
F090	Fuel per pump charge - cement			pump/hr	8	61.000	488.00	0%	488.00
J225	Data Acquisition, Cement, Standard			job	1	1,635.000	1,635.00	65%	572.25
J390	Mileage, Heavy Vehicle			miles	240	9.100	2,184.00	65%	764.40
J391	Mileage, Auto, Pick-Up or Treating Van			miles	240	5.150	1,236.00	65%	432.60
K230	Multiple Stage Cementing			stage	1	4,050.000	4,050.00	65%	1,417.50
	SUB-TOTAL FOR Equipment						31,543.00	63.99%	11,357.25
ARRIVE LOCATION :	MO. 02	DAY 20	YEAR 2012	TIME 14:30	SERVICE ORDER: I AUTHORIZE WORK TO BEGIN PER SERVICE INSTRUCTIONS IN ACCORDANCE WITH THE TERMS AND CONDITIONS PRINTED ON THE LAST PAGE OF THIS FORM AND REPRESENT THAT HAVE AUTHORITY TO ACCEPT AND SIGN THIS ORDER.			SERVICE RECEIPT: I CERTIFY THAT THE MATERIALS AND SERVICES LISTED WERE RECEIVED AND ALL SERVICES PERFORMED IN A WORKMANLIKE MANNER.	
CUSTOMER REP. BILL KINDEND								CUSTOMER AUTHORIZED AGENT X	
SEE LAST PAGE FOR GENERAL TERMS AND CONDITIONS					CUSTOMER AUTHORIZED AGENT			BHI APPROVED X	



FIELD RECEIPT NO. 796910022

CUSTOMER SLAWSON EXPLORATION CO INC				CREDIT APPROVAL NO.	PURCHASE ORDER NO.		CUSTOMER NUMBER 20081002 - 00257645		INVOICE NUMBER
MAIL INVOICE TO : 1675 BROADWAY, SUITE 1600				CITY DENVER		STATE Colorado	ZIP CODE 80202-4675		
DATE WORK COMPLETED	MO. 02	DAY 21	YEAR 2012	BHI REPRESENTATIVE DAVID W MCCORMICK	WELL API NO: 33053039430000	WELL TYPE : New Well			
DISTRICT BJS, DICKINSON				JOB DEPTH(ft) 11,535	WELL CLASS : Oil				
WELL NAME AND NUMBER MAGNUM #1-36-25H				TD WELL DEPTH(ft) 11,544	GAS USED ON JOB : No Gas				
WELL LOCATION :	LEGAL DESCRIPTION 36-153N-101W			COUNTY/PARISH Mckenzie	STATE North Dakota	JOB TYPE CODE : Intermediate			
PRODUCT CODE	DESCRIPTION			UNIT OF MEASURE	QUANTITY	LIST PRICE UNIT	GROSS AMOUNT	% DISC.	NET AMOUNT
J401	Bulk Delivery, Dry Products SUB-TOTAL FOR Freight/Delivery Charges			ton-mi	7047	3.030	21,352.41	65%	7,473.34
				FIELD ESTIMATE			21,352.41	65.00%	7,473.34
							148,650.45	64.65%	52,554.84
ARRIVE LOCATION :	MO. 02	DAY 20	YEAR 2012	TIME 14:30	SERVICE ORDER: I AUTHORIZE WORK TO BEGIN PER SERVICE INSTRUCTIONS IN ACCORDANCE WITH THE TERMS AND CONDITIONS PRINTED ON THE LAST PAGE OF THIS FORM AND REPRESENT THAT I HAVE AUTHORITY TO ACCEPT AND SIGN THIS ORDER.		SERVICE RECEIPT: I CERTIFY THAT THE MATERIALS AND SERVICES LISTED WERE RECEIVED AND ALL SERVICES PERFORMED IN A WORKMANLIKE MANNER.		
CUSTOMER REP. BILL KINDEND							CUSTOMER AUTHORIZED AGENT X		
SEE LAST PAGE FOR GENERAL TERMS AND CONDITIONS					CUSTOMER AUTHORIZED AGENT		BHI APPROVED X		



SUNDRY NOTICES AND REPORTS ON WELLS - FORM

INDUSTRIAL COMMISSION OF NORTH DAKOTA
OIL AND GAS DIVISION
600 EAST BOULEVARD DEPT 405
BISMARCK, ND 58505-0840
SFSN 5749 (09-2006)



Well File No.
22247

PLEASE READ INSTRUCTIONS BEFORE FILLING OUT FORM.
PLEASE SUBMIT THE ORIGINAL AND ONE COPY.

Notice of Intent

Approximate Start Date
April 26, 2012

Report of Work Done

Date Work Completed

Notice of Intent to Begin a Workover Project that may Qualify
for a Tax Exemption Pursuant to NDCC Section 57-51.1-03.

Approximate Start Date

Drilling Prognosis

Spill Report

Redrilling or Repair

Shooting

Casing or Liner

Acidizing

Plug Well

Fracture Treatment

Supplemental History

Change Production Method

Temporarily Abandon

Reclamation

Other **Pit & surface Reclamation**

Well Name and Number

Magnum 1-36-25H

Footages	Qtr-Qtr	Section	Township	Range
250 F S L	815 F W L	SWSW	36	153 N 101 W

Field	Pool	County
Baker	Bakken	McKenzie

24-HOUR PRODUCTION RATE

	Before	After
Oil	Bbls	Oil
Water	Bbls	Water
Gas	MCF	Gas

Name of Contractor(s)

See Below

Address	City	State	Zip Code
---------	------	-------	----------

DETAILS OF WORK

Slawson Exploration Company, Inc. is panning to begin reclamation work on the reserve pit of this well. The surface owner is VERLIN L FOSSUM, 13922 43RD ST NW, WILLISTON ND 58801-8709 . Any oil in the pit will be skimmed off and used in Invert Mud for drilling other wells. The water will be disposed of by Slawson at various licensed Slawson injection facilities, such as the Sanish 1-9SWD. Once the fluids are removed the cuttings were dried and mixed with fly ash for stabilization. The liner will then be folded over the stabilized cuttings in the pit and buried approximately 6 ft. deep with back fill and topsoil. The site will then re-seeded. This construction will be completed by one of the three following contractors pending availability.

1. Gold Star Production Services, LLC, 6219, 39th Street NW, Plaza, ND, 58771
2. FMR Services Inc., 3767 County Road 99W, Orland, CA, 95963
3. W.L. Neu Construction, Inc., PO Box 461, Fairview, MT, 59221

Company	Telephone Number	
Slawson Exploration Company, Inc.	720-457-9820	
Address		
1675 Broadway, Suite 1600		
City	State	Zip Code
Denver	CO	80202
Signature	Printed Name	
	Matt Glenn	
Title	Date	
Engineering Technician	April 26, 2012	
Email Address		
mglen@slawsoncompanies.com		

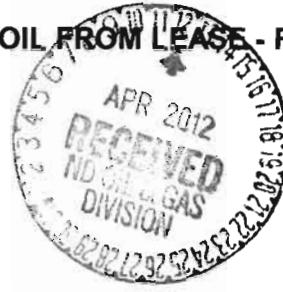
FOR STATE USE ONLY

<input type="checkbox"/> Received	<input checked="" type="checkbox"/> Approved
Date	5-7-12
By	
Title	Cody Neel



AUTHORIZATION TO PURCHASE AND TRANSPORT OIL FROM LEASE - FORM 8

INDUSTRIAL COMMISSION OF NORTH DAKOTA
OIL AND GAS DIVISION
600 EAST BOULEVARD DEPT 405
BISMARCK, ND 58505-0840
SFN 5698 (03-2000)



1H
22247

Well File No.	20151
NDIC CTB No.	12247

PLEASE READ INSTRUCTIONS BEFORE FILLING OUT FORM.

PLEASE SUBMIT THE ORIGINAL AND FOUR COPIES.

Well Name and Number Magnum 1-36-25H	Qtr-Qtr SWSW	Section 36	Township 153 N	Range 101 W	County McKenzie
Operator Slawson Exploration Company, Inc.	Telephone Number 720-457-9820		Field Baker		
Address 1675 Broadway, Suite 1600	City Denver		State CO	Zip Code 80202	

Name of First Purchaser Devlar Energy Marketing, LLC	Telephone Number 303-683-4242	% Purchased 100	Date Effective April 1, 2012
Principal Place of Business 384 Inverness Parkway, Suite 150	City Englewood	State CO	Zip Code 80112
Field Address	City		Zip Code
Name of Transporter Grizzly Mountain Trucking LLC	Telephone Number 406-377-6831	% Transported 100	Date Effective April 1, 2012
Address PO Box 14	City Glendive	State MT	Zip Code 59330

The above named producer authorizes the above named purchaser to purchase the percentage of oil stated above which is produced from the lease designated above until further notice. The oil will be transported by the above named transporter.

Other First Purchasers Purchasing From This Lease	% Purchased	Date Effective
Other First Purchasers Purchasing From This Lease	% Purchased	Date Effective
Other Transporters Transporting From This Lease	% Transported	Date Effective
Other Transporters Transporting From This Lease	% Transported	Date Effective
Comments The Magnum 1-36-25H has just been completed. We will request a verbal request to sell 8,000 barrels to allow time for the completion report to be submitted.		

I hereby swear or affirm that the information provided is true, complete and correct as determined from all available records.	Date April 9, 2012	
Signature 	Printed Name Matt Glenn	Title Engineering Technician

Above Signature Witnessed By	Witness Signature 	Witness Printed Name Holly Hampson	Witness Title Drilling Technician
------------------------------	-----------------------	--	---

FOR STATE USE ONLY

Date Approved 5-8-12
By
Title Oil & Gas Production Analyst



WELL COMPLETION OR RECOMPLETION REPORT - FORM 6

INDUSTRIAL COMMISSION OF NORTH DAKOTA
OIL AND GAS DIVISION
600 EAST BOULEVARD DEPT 405
BISMARCK, ND 58505-0840
SFSN 2468 (04-2010)

Well File No.
22247

PLEASE READ INSTRUCTIONS BEFORE FILLING OUT FORM.

PLEASE SUBMIT THE ORIGINAL AND ONE COPY.

Designate Type of Completion

Oil Well EOR Well Recompletion Deepened Well Added Horizontal Leg Extended Horizontal Leg
 Gas Well SWD Well Water Supply Well Other

Well Name and Number Magnum 1-36-25H	Spacing Unit Description All of Sec. 25 & 36 T153N R101W
--	--

Operator Slawson Exploration Company, Inc.	Telephone Number 720-457-9820	Field Baker
--	---	-----------------------

Address 1675 Broadway Suite 1600	Pool Bakken
---	------------------------------

City Denver	State CO	Zip Code 80202	Permit Type	<input type="checkbox"/> Wildcat	<input checked="" type="checkbox"/> Development	<input type="checkbox"/> Extension
-----------------------	--------------------	--------------------------	-------------	----------------------------------	---	------------------------------------

LOCATION OF WELL

At Surface **250 F S L** **815 F W L** Qtr-Qtr **SWSW** Section **36** Township **153 N** Range **101 W** County **McKenzie**

Spud Date 1/29/2012	Date TD Reached 3/7/2012	Drilling Contractor and Rig Number Nabors Rig #419	KB Elevation (Ft) 2211	Graded Elevation (Ft) 2191
-------------------------------	------------------------------------	--	----------------------------------	--------------------------------------

Type of Electric and Other Logs Run (See Instructions)

Triple Combo - DIL, CNL, CDL with GR to surface CBL/GR/CCL

CASING & TUBULARS RECORD (Report all strings set in well)

PERFORATION & OPEN HOLE INTERVALS

PRODUCTION

Current Producing Open Hole or Perforated Interval(s), This Completion, Top and Bottom, (MD Ft) **11482' to 20700'** Name of Zone (If Different from Pool Name) **Middle Bakken**

Date Well Completed (SEE INSTRUCTIONS) 4/5/2012	Producing Method Flowing	Pumping-Size & Type of Pump	Well Status (Producing or Shut-In) producing up a 7" Casing
--	------------------------------------	-----------------------------	---

Date of Test	Hours Tested	Choke Size	Production for Test	Oil (Bbls)	Gas (MCF)	Water (Bbls)	Oil Gravity-API (Corr.)	Disposition of Gas
4/5/2012	24	28 /64		953	1143.6	890	42.0 °	Flared

orig

GEOLOGICAL MARKERS

Formation	MD (Ft)	TVD (Ft)
Greerhorn	4719	
Belle Fourche	4931	
Mowry	5129	
Inyan Kara	5521	
Swift	6025	
Rierdon	6568	
Piper	6660	
Dunham Salt		
Base Dunham Salt		
Spearfish	7103	
Pine Salt	7360	
Base Pine Sale	7386	
Opeche	7461	
Minnelusa		
Amsden	7713	
Tyler	7874	
Big Snowy	8089	
Kibbey	8277	
Kibbey Lime	8438	
Charles	8585	
Base Last Salt	9275	
Mission Canyon	9482	
Lodgepole	10024	
KOP	10304	
Upper Bakken Shale	10775	
Middle Bakken	10791	

PLUG BACK INFORMATION

CORES CUT

Top (Ft)	Bottom (Ft)	Formation	Top (Ft)	Bottom (Ft)	Formation

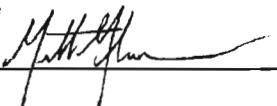
Drill Stem Test

Well Specific Stimulation

Date Stimulated 3/30/2012	Stimulated Formation Middle Bakken		Top (Ft) 11482	Bottom (Ft) 20700	Stimulation Stages 32	Volume 38498	Volume Units Barrels
Type Treatment Sand Frac	Acid %	Lbs Proppant 2262520	Maximum Treatment Pressure (PSI) 6790		Maximum Treatment Rate (BBLS/Min) 36.7		
Details Frac'd the Middle Bakken with the 32 stages, using fracturing sleeves and packers, with 284,720# of 100 Mesh Sand, 960,580# of 20/40 Sand, and 1,017,220# 18/40 Versalite.							
Date Stimulated	Stimulated Formation		Top (Ft)	Bottom (Ft)	Stimulation Stages	Volume	Volume Units
Type Treatment	Acid %	Lbs Proppant	Maximum Treatment Pressure (PSI)		Maximum Treatment Rate (BBLS/Min)		
Details							
Date Stimulated	Stimulated Formation		Top (Ft)	Bottom (Ft)	Stimulation Stages	Volume	Volume Units
Type Treatment	Acid %	Lbs Proppant	Maximum Treatment Pressure (PSI)		Maximum Treatment Rate (BBLS/Min)		
Details							
Date Stimulated	Stimulated Formation		Top (Ft)	Bottom (Ft)	Stimulation Stages	Volume	Volume Units
Type Treatment	Acid %	Lbs Proppant	Maximum Treatment Pressure (PSI)		Maximum Treatment Rate (BBLS/Min)		
Details							
Date Stimulated	Stimulated Formation		Top (Ft)	Bottom (Ft)	Stimulation Stages	Volume	Volume Units
Type Treatment	Acid %	Lbs Proppant	Maximum Treatment Pressure (PSI)		Maximum Treatment Rate (BBLS/Min)		
Details							

ADDITIONAL INFORMATION AND/OR LIST OF ATTACHMENTS

Attached are the Certified well location plat and a well bore diagram. The directional surveys, Open hole logs and CBL logs will be sent directly to you from the contractors.

I hereby swear or affirm that the information provided is true, complete and correct as determined from all available records.	Email Address mglenn@slawsoncompanies.com	Date 4/25/2012
Signature 	Printed Name Matthew Glenn	Title Engineering Technician

WELL LOCATION PLAT

Slawson Exploration Company, Inc.
1675 Broadway, Suite 1600 Denver, Colorado 80202

Magnum 1-36-25H

250 feet from the south line and 815 feet from the west line (surface location)

Section 36, T. 153 N. R. 101 W., 5th P.M.

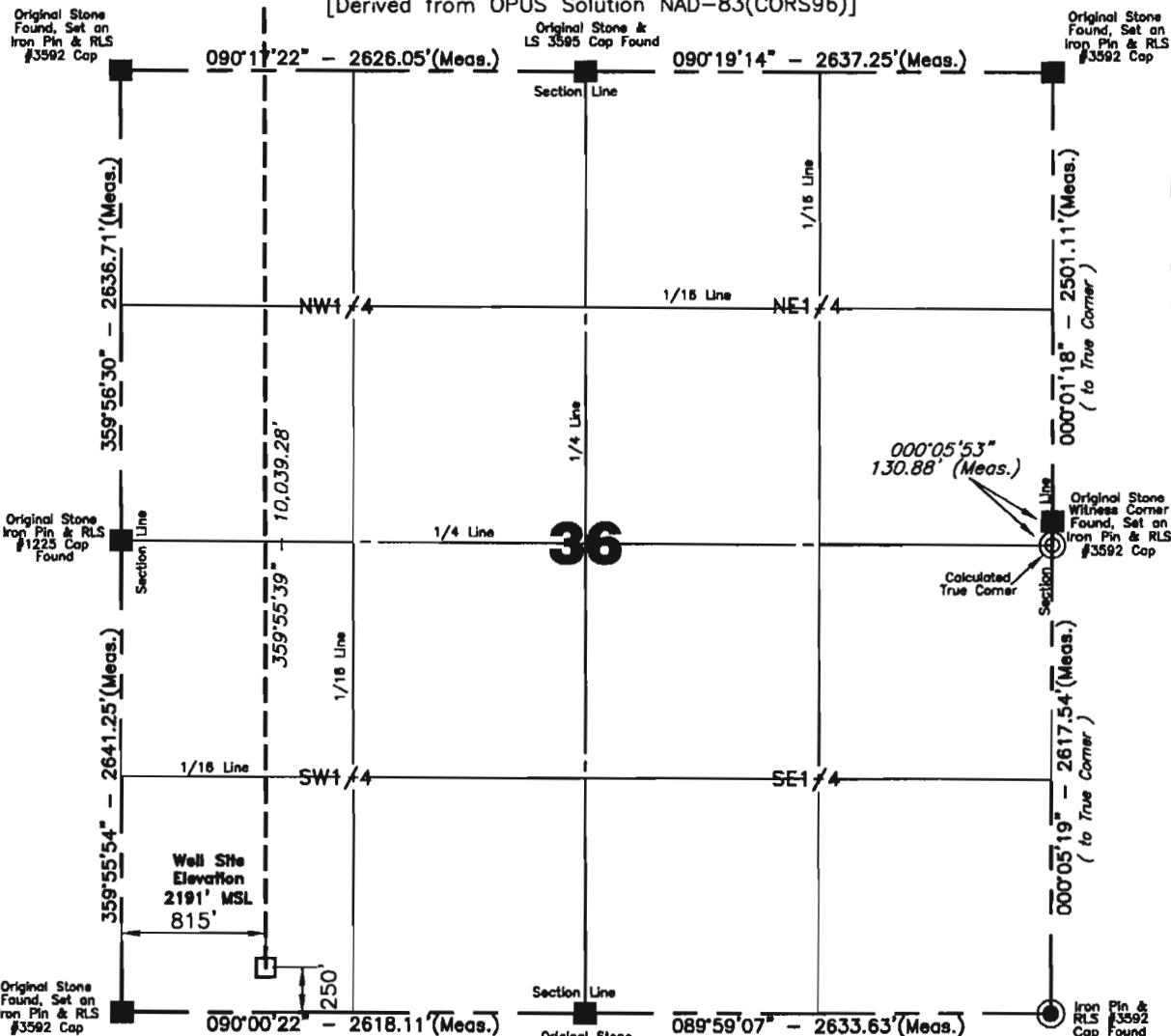
250 feet from the north line and 815 feet from the west line (bottom hole location)

Section 25, T. 153 N. R. 101 W., 5th P.M.

McKenzie County, North Dakota

Surface owner @ well site — Verlin L. Fossum

Latitude 48°01'30.33" North; Longitude 103°37'20.35" West (surface location)
Latitude 48°03'09.39" North; Longitude 103°37'20.48" West (bottom hole location)
[Derived from OPUS Solution NAD-83(CORS96)]



Confidentiality Notice: The information contained on this plat is legally privileged and confidential information intended only for the use of recipients. If you are not the intended recipients, you are hereby notified that any use, dissemination, distribution or copying of this information is strictly prohibited.

NOTE: All land corners are assumed unless otherwise noted.
The well location shown hereon is not an as-built location.

I, Rick Leach, Professional Land Surveyor, N.D. No. 3496, do hereby certify that the survey plat shown hereon was made by me, or under my direction, from notes made in the field, and the same is true and correct to the best of my knowledge and belief.

Greg Holkesvig
Surveyed By

12/16/2010

Date

Revised: 8/8/2011

Vertical Control Datum Used Sea-Level Datum of NAVD 88	Based on elevation derived from OPUS Solution on GPS-KLJ (aluminum cap) Located a distance of 1995.55' on an azimuth of 270°27'01" from the NW corner of Section 25 T.153N., R.101W., 5th P.M. being at 2059.68' Elevation MSL.
Project No. 3709493	Book Minot OW-129Pg. 5-7 Staking

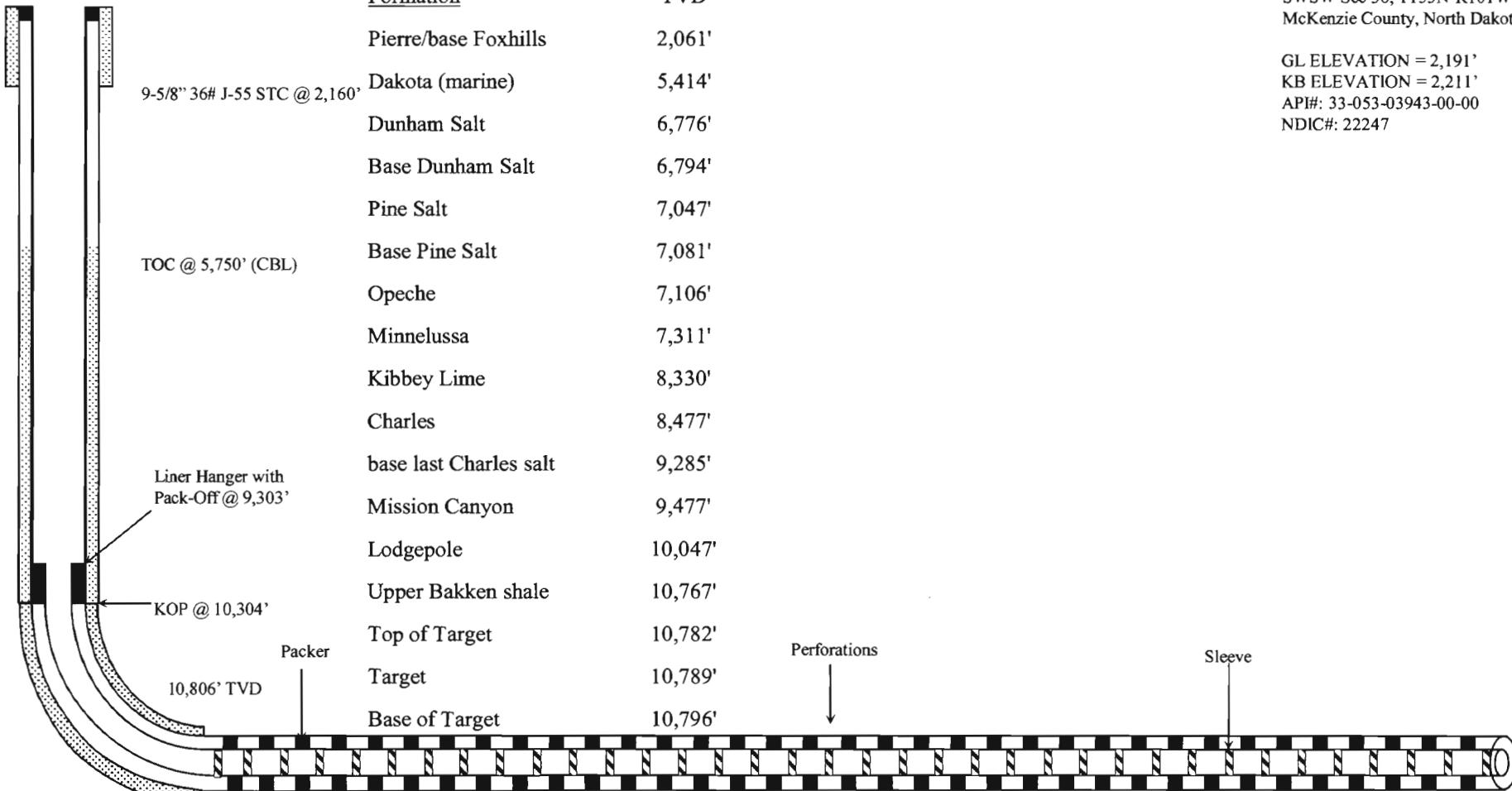
Professional Consulting Engineers and Surveyors Registered in North Dakota, South Dakota, Montana, Wyoming & Minnesota Tele-Fax No. 701-483-2795 Bus. Phone No. 701-483-1284 P.O. Box 290 677 27th Ave. E. Dickinson, North Dakota 58602 Certificates of Authorization #C-081
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**Kadrmas
Lee &
Jackson**
Engineers Surveyors
Planners



WELLBORE DIAGRAM
Magnum #1-36-25H



7" 32# P-110 from Surface to 237'
 7" 29# P-110 from 237' to 6,670'
 7" 32# P-110 from 6,670' to 9,392'
 7" 29# P-110 from 9,392' to 11,482'

8,011' of 4-1/2" 11.6# BTC &
 2,438" of 4-1/2" 13.5# LTC
 liner with 32 packers, 31 sleeves
 and a liner hanger with pack-off
 (967' of tools). Set Liner at
 20,700'

Lateral TD @ 20,730' MD,
 10,794' TVD

Location: 250' FSL and 815' FWL
 SWSW Sec 36, T153N-R101W
 McKenzie County, North Dakota

GL ELEVATION = 2,191'
 KB ELEVATION = 2,211'
 API#: 33-053-03943-00-00
 NDIC#: 22247

22247

A/A

Slawson Exploration Company, Inc

Magnum 1-36-25H

250' FSL & 815' FWL

SW SW Section 36, T153N, R101W

Baker Field / Bakken

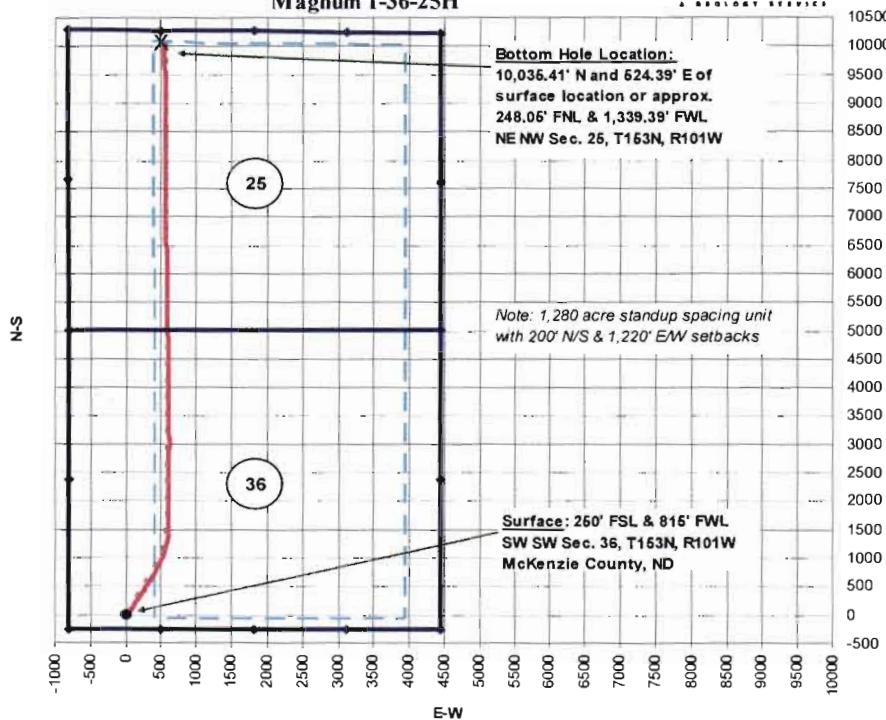
McKenzie County, North Dakota



PLAN VIEW

Slawson Exploration Company, Inc.
Magnum 1-36-25H

SUNBURST
CONSULTING
A GEOLOGY SERVICE



BOTTOM HOLE LOCATION:

10,035.41' N and 524.39' E of surface location or approx.
248.05' FNL & 1,339.39' FWL, NE NW Sec. 25, T153N, R101W

Prepared for:

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Prepared by:

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WELL EVALUATION



Figure 1: Part 1 of Know Your Rig photo series. The equipment above is a centrifuge and is critical for maintaining mud properties. Mud from the tank system will flow through the centrifuge and the low gravity solids (cuttings) will drop out, lowering the mud weight. (Brandon Hill, for Sunburst Consulting)

INTRODUCTION

The **Slawson Exploration Co.** *Magnum 1-36-25H [SW SW SEC 36, T153N, R101W]* is located ~15 miles southwest of the town of Williston in McKenzie County, North Dakota. The well was planned with one 9,183' long northbound leg with intent to intersect regional fracture trends that might enhance reservoir quality within the Middle Bakken Member.

Directional tools were utilized to build a curve and land within the 200' legal setbacks of Section 36. A tangent was drilled prior to casing to cross the western hard line and set in the Middle Bakken approximately 18' below the Upper Bakken Shale. 7" intermediate casing was set at this point to isolate the target reservoir. A single horizontal lateral in the Middle Bakken was proposed to be drill into the NE ¼ of NW ¼ of Section 25.

OFFSET INFORMATION

Three previously completed nearby wells were used as offset controls on *Magnum 1-36-25H*. The *Lindvig 1-35* was drilled in August of 1981 by Texas Gas exploration Co 0.3 miles west of the *Magnum 1-36-25H*. The *Fossum 15-35H* is a parallel Bakken horizontal drilled by SM Energy Co. in August of 2010 approximately 0.5 miles west of the *Magnum 1-36-25H*. The Third offset was the Harper Oil Co.'s *Verlin Fossum et al 26-1*. It is a vertical Red River well drilled in December of 1979 1.5 miles northwest of the *Magnum 1-36-25H*.

During the curve, gamma ray was constantly compared to the offset data to help determine a proper landing depth. To aid in the landing of the curve, an isopach table (Table 1) was constructed to measure the distance of select gamma markers to the target depth determined from the offset wells.

Due to variances in the offset isopachs, a weighted average was used in forecasting a landing depth. Comparing gamma ray markers at the *Magnum 1-36-25H* to correlative markers from the offsets made it easier to predict the probable TVD depth of the Middle Bakken target. With its proximity, the *Lindvig 1-35* most closely resembled gamma ray signatures at the *Magnum 1-36-25H*.

TARGET PROXIMATION				
Formation/ Zone:	Proposed Top of Target From:			
	Lindvig 1-35	Fossum 15-35H	Verlin Fossum et al. 26-1	Average of Offset Wells
Kibbey Lime	10,812'	10,813'	10,813'	10,813'
Charles	10,838'	10,850'	10,850'	10,846'
Base Last Salt	10,806'	10,802'	10,802'	10,803'
Mission Canyon	10,802'	10,803'	10,803'	10,803'
Lodgepole	10,803'	10,776'	10,776'	10,785'
LP 1	10,808'	-	-	10,808'
LP 2	10,805'	-	-	10,805'
LP 3	-	-	-	-
False Bakken	10,814'	10,812'	10,812'	10,813'
Upper Bakken Shale	10,811'	10,811'	10,811'	10,811'
Middle Bakken	10,811'	10,811'	10,811'	10,811'
M. Bakken (Target)	10,809'	10,809'	10,809'	10,809'
Lower Bakken Shale	-	-	-	-

Table 1: Using distance from gamma markers in offset hole to determine a proposed drilling target.

VERTICAL OPERATIONS

The *Magnum 1-36-25H* was spud on January 28, 2012 with a Slawson surface spud rig. A 13 1/2" hole was drilled with fresh water to 2,187' MD and isolated with 9 5/8" 36# J-55 casing cemented to surface. On February 6, 2012 the Nabors 419 drilling rig reentered surface to begin vertical operations. Upon casing exit the drilling fluid was changed to diesel invert with a target weight of 9.9 to 9.7 ppg for use in the remaining vertical and curve. The area surrounding Magnum was a highly prosperous and well developed Mission Canyon field. As a result, formation depletion resulted in the loss of 2,363 bbls of invert mud while drilling into the Mission Canyon. The vertical was drilled to a preliminary KOP of 10,281' MD with 2 Ulterra bits. The first drilled from under casing to a MD of 8,502' where it was pulled as planned for the Kibbey bit trip. The second Ulterra bit was replaced at 10,281' MD which was the preliminary KOP.

The first bit drilled 6,322' in 66.5 hours for an average ROP of 95.06 ft/hr. The second completed the vertical after drilling 1,779' in 32 hours for an average ROP of 55.59 ft/hr. Vertical operations were completed on February 15, 2012.

DIRECTIONAL OPERATIONS

Sperry Sun provided equipment and personnel for MWD and directional services. Sunburst Consulting geologists worked closely throughout the project with Sperry Sun to make steering decisions and maximize the amount of borehole in the pay zone. Attention was also paid to providing a smooth lateral well bore to ease the implementation of the aggressive production fracture program. Tight adherence to the drill line was required to prevent any interference with future drill plans for the section. As such, a window of no more than 25' on either side of the line was given. At its widest point the lateral departed the planned line by 20.22' to the west.

Curve Build

The curve build was to drill down 477' TVD in 750' MD and required 12 degrees of build per 100' (Figures 2 & 3). The curve was drilled with a single 8 3/4 PDC bit. After reaching 90 degrees a tangent section was put in place to cross the western hard line. After completing the tangent, 7" casing was set at 11,529' MD, 10,808.58' TVD, ~18' below the Upper Bakken Shale. The single Security bit drilled 1,263' in 86.94 hours for an average drilling rate of 14.52 ft/hr.

The Security FXD55M combined with the Sperry directional motor drilled quickly while providing predictable and generous build rates. The optimal performance of the curve assembly allowed for increased rotation whilst decreasing time spent on the build section.

The added benefit of predictable build rates made forecasting the TVD of the False Bakken and Upper Bakken Shale from penetration rates more reliable; this in turn allowed for on the fly adjustments to landing target and insured a landing within the desired objective.

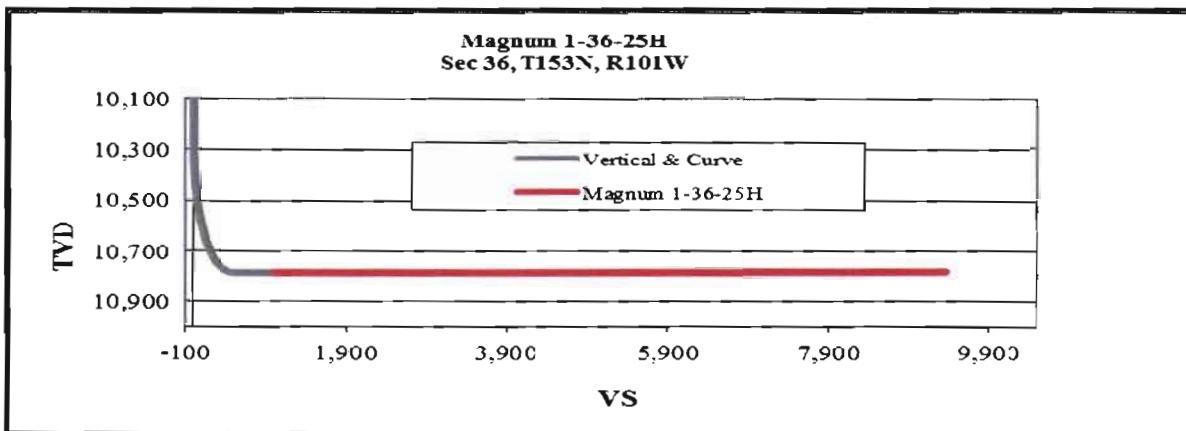


Figure 2: Drill plan provided by Slawson

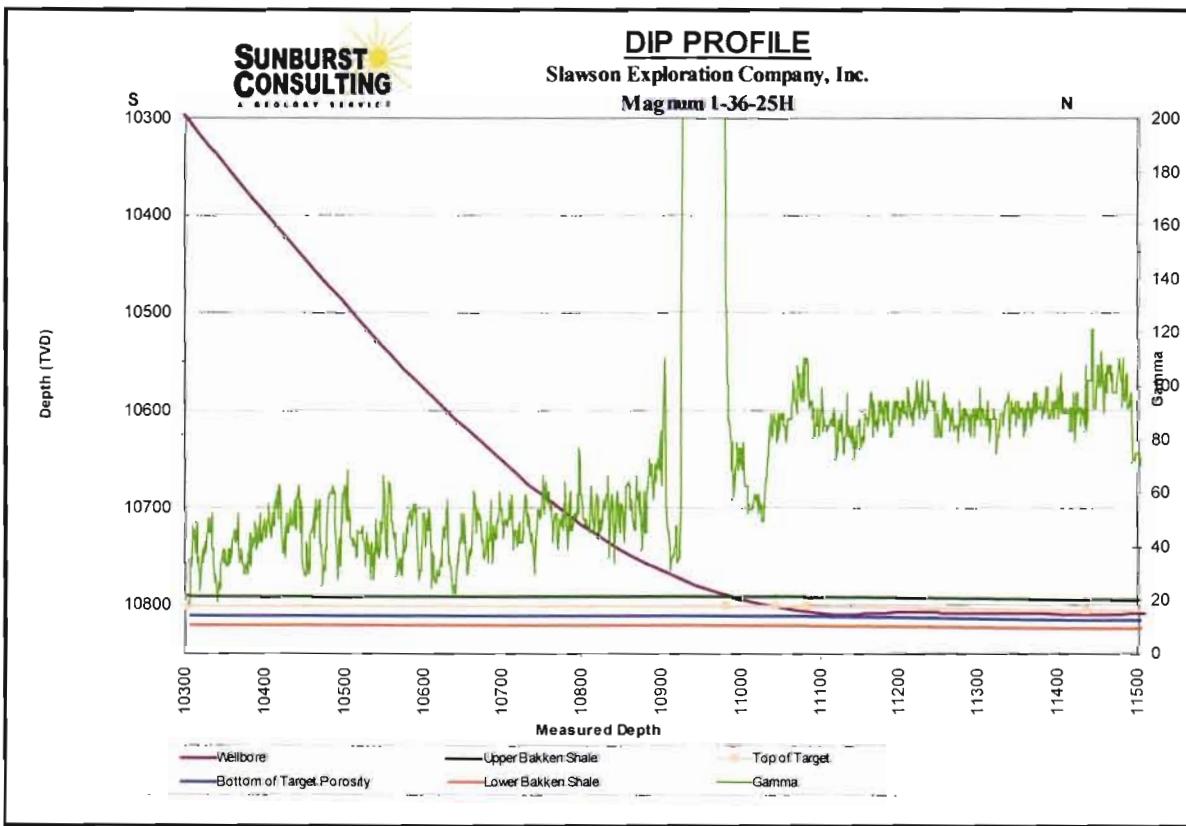


Figure 3: Curve as drilled Illustrated on the Sunburst Profile

Lateral

Lateral drilling fluid was ~10.1– 9.7 ppg diesel invert. Three trips were required while drilling the *Magnum 1-36-25H*. The first came as penetration rates began to fall at 16,398' MD. A fresh motor and smith bit were put in place to continue the lateral. Approximately 200' feet later, it became apparent that the agitator would not allow for data collection with the Sperry MWD tool.

A trip was made to replace the MWD tool and the agitator while leaving the motor and bit.

Both BHA's were drilled using a flex collar for added stability. The flex monel shown in diagram below (Figure 4) stabilized rotation and decreased the amount of slides required. This was the second time a flex collar was used in a Slawson project and it continued to be effective despite the change in environment.

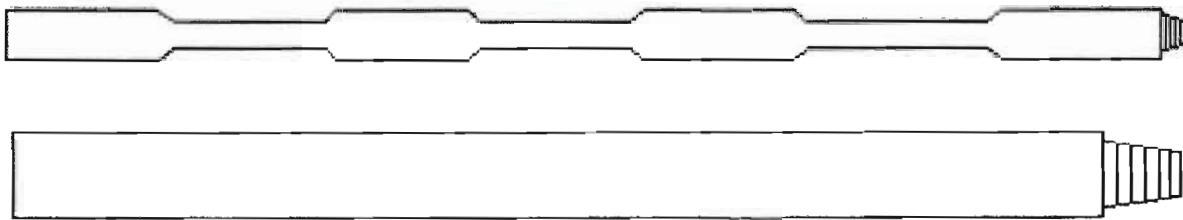


Figure 4: Diagram of a flex monel (top) vs a standard monel (Bottom)

The first assembly drilled 4,854' in 99.5 hours for an average ROP of 48.78 ft/hr. The final assembly, a 5 bladed bit from Smith, drilled 4,332' in 85.71 hours for an average speed of 50.54 ft/hr. The well reached a total depth (TD) of 20,437' MD at 20:00 CST March 6, 2012. The use of a lateral reamer in the drill string helped to reduce hole drag and over pull which will likely ease the placing of liner.

GEOLOGIC EVALUATION

Methods

Geologic supervision of *Magnum 1-36-25H* was provided by Sunburst Consulting, Inc. with two well site geologists. A digital gas detector was interfaced with a Pason electronic data recorder system. Pason provided drill rate, on-off bottom, and pump strokes to the gas detection computer and received total gas information from Sunburst for viewing around location. Rig crews caught lagged samples under the direction of Sunburst geologists (see LITHOLOGY for sample lag intervals and descriptions). The sample cuttings were examined wet and dry under a binocular microscope using both plain (broad spectrum) and transmitted light. Sunburst personnel also closely examined MWD gamma ray information and penetration rates to aid in steering decisions and dip rate estimations.

Lithology and Hydrocarbon Shows

Geologic evaluation began at 7,700' MD in the Shale and Anhydrite of the **Amsden Formation**. Samples from this area were described as:

SILTSTONE: red orange, friable, sub blocky to sub platy, calcareous cement, poorly cemented, no visible porosity; common

ANHYDRITE: off white, cryptocrystalline, soft, massive, amorphous texture, no visible porosity

DOLOMITE: microcrystalline, hard, subhedral to anhedral, crystalline texture, no visible porosity

The **Tyler Formation** [Pennsylvanian Minnelusa Group] was penetrated at 7,886' TVD (-5,667'). The Tyler formation consisted of shale and sandstones that in parts of the basin have produced notable hydrocarbons. The *Magnum 1-36-25H* did not show any prominent increases in hydrocarbon gas. Samples from this interval (Figure 5) were described as:

*SHALE: blackish shale brown, friable, subblocky to sub platy, earthy texture
trace SHALE: orange to trace reddish orange, trace gray green, subblocky to sub platy, no visible porosity, very trace.*

SILTSTONE: orange, trace dark red, friable, subblocky to sub platy, calcareous cement, poorly cemented, no visible porosity



Figure 5: Photograph of pink sand and greenish shale from the Tyler Formation.

The **Kibbey “Lime” Interval** [Mississippian, Big Snowy Gp] was penetrated at 8,442' TVD (-6,223'), 9' low to the *Lindvig 1-3*. Samples from this interval (Figure 6) were described as:

ANHYDRITE: off white, cryptocrystalline, soft, amorphous texture, silty grained in part, no visible porosity

LIMESTONE: light gray to gray, mudstone to wackestone, microcrystalline, firm, earthy texture, no visible porosity



Figure 6: Photograph of Kibbey limestone

The **Charles Formation** [Mississippian Madison Group] was penetrated at 8,616' TVD (-6,407'). The **Base of the Last Charles Salt** was drilled at 9,266' TVD (-7,057'), 3' low to *Lindvig 1-35*. Samples from this interval (Figure 7) were described as:

SALT: translucent, crystalline, hard, anhedral to trace subhedral, crystalline texture, no visible porosity; trace ANHYDRITE: off white, cryptocrystalline, soft, amorphous texture, no visible porosity

LIMESTONE: light gray to gray, mudstone to wackestone, microcrystalline, firm, earthy texture, no visible porosity



Figure 7: Photograph of salt found in Charles Formation

The **Mission Canyon** [Mississippian Madison Group] was penetrated at 9,482' TVD (-7,273'), 1' high to *Lindvig 1-35*. Surrounding the *Magnum 1-36-25H* was a heavily produced Mission Canyon field. The resulting depletion of formation pressure caused the loss of 2,363 bbls of invert drilling fluid. On some occasions the formation would give back fluid along with high sharp increases in hydrocarbon gas. Large amounts of LCM made it difficult to evaluate overall Mission Canyon potential. The draw down in pressure, however, could speak to favorable permeability. Samples from the Mission Canyon (Figure 8) were described as:

DOLOMITIC LIMESTONE: mudstone, light brown, very fine crystalline, friable to firm, microsucrosic texture, trace pyrite, trace to rare intercrystalline porosity, trace light black oil stain

DOLOMITE: mudstone, light gray brown, friable, earthy texture, rare to occasional intercrystalline porosity, rare dark brown spotty oil stain

LIMESTONE: mudstone, light brown gray, light brown, trace medium brown, microcrystalline, firm to friable, earthy to slightly crystalline texture, trace disseminated pyrite, trace pinpoint porosity, rare spotty light to medium brown oil stain

ARGILLACEOUS LIMESTONE: mudstone, medium to light gray brown, microcrystalline, friable, earthy texture, rare disseminated pyrite, no visible porosity or oil stain



Figure 8: Photo showing common levels of oil staining within the Mission Canyon

The **Lodgepole Formation** [Mississippian Madison Group] top was drilled at 10,024' TVD (-7,815'), making it flat to the *Lindvig 1-35*. Approximately 731' of limestone, much of it argillaceous mudstone with common pyrite and sparry calcite, was drilled in the Lodgepole. Samples collected from the Lodgepole (Figure 9) were described as:

ARGILLACEOUS LIMESTONE: mudstone, light gray to rare medium gray to trace medium brown, microcrystalline, firm to trace hard, dense, earthy to trace crystalline texture, trace siliceous, no visible porosity

LIMESTONE: mudstone, medium gray to rare light gray to rare off white to trace dark gray, microcrystalline, firm to trace hard, dense, earthy to rare crystalline texture, siliceous in part, possible intergranular porosity, trace dark brown dead spotty oil stain



Figure 9: Photograph of limestone from the Lodgepole Formation.

The “**False Bakken**” was penetrated at 10,767’ TVD (-8,558’), suggesting a target depth of 10,813’ TVD. The underlying **Scallion** interval showed gas peaks as high as 2,058 units.

The **Upper Shale** of the **Bakken Formation** [Mississippian – Devonian] was drilled at 10,775’ TVD (-8,566’) suggesting a casing point of 10,811’ TVD. The Bakken came in 8’ low to the **Lindvig 1-35#**. Sample returns were typical black, carbonaceous, and petroliferous shale (Figure 10), characterized by gamma ray values in excess of 400 API. Background gas climbed steadily with peaks above 400 units over a background of about 200 units. Samples were described as:

SHALE: black, firm to friable, sub blocky to sub platy, earthy texture, petroliferous, carbonaceous, abundant disseminated pyrite, nodular pyrite, no visible porosity



Figure 10: Photograph of typical black carbonaceous Bakken Shale.

The **Middle Member** of the **Bakken Formation** was penetrated at 11,975' MD, (10,791 TVD), 8' low to the *Lindvig 1-35*, suggesting a target of 10,811' TVD (Table 1). While drilling the *Magnum 1-36-25H*, samples varied only slightly within the target area. Some differences in oil staining could be seen. The upper half of the targeted interval consisted of a high gamma layer which primarily consisted of interbedded cream-tan colored silty sandstone with rare to common oil stain. At times the silty sandstone would be interbedded with light gray siltstone. The lower edge of zone defined as Marker E was well cemented sandstone with occasional stringers of lime packstone. Samples collected from the Bakken Formation were described as:

SILTSTONE: medium brown, friable to trace firm, sub blocky to sub platy, calcareous cement, poorly to trace moderately cemented, trace disseminated pyrite, no visible porosity

SILTY SANDSTONE: cream to off white, very fine grained, friable to trace firm, sub angular to sub rounded, well sorted, calcareous cement, poorly to trace moderately cemented, trace disseminated pyrite, possible intergranular porosity, trace dark brown spotty oil stain (Figure 11)



Figure 11: Photograph of silty sandstone found through out zone.

Hydrocarbon Shows

The lateral began with a background gas of about 200 units with an average connection gas above 300 units. By the time the tangent was drilled and the well bore reached a casing point of 11,544' MD, background gas had climbed to about 250 units, but connections remained steady.

Shortly after exiting casing, the bit climbed through section along markers C and B (Figure 12). The average gas climbed slightly to 300 units with connections reaching 400 units (Figure 13). A peak downtime/connection gas was detected, reaching 900 units. Background levels decreased as

the bit dropped from the top of zone. The bit was allowed to remain within the D marker but began to drop slightly in section while the laterals turn was being completed. By 12,848' MD the bit was hovering just above the E marker in lower D. This proved beneficial as gas levels increased markedly. Between 12,848' and 13,340' MD, background levels climbed as high as 800 units with connections commonly reaching 1,600 units. That interval also enjoyed an increase in overall ROP that suggests an encouraging porosity.

After 13,350' MD, background gases dropped dramatically. This was due to the wellbore passing into marker E. Marker E would prove the most useful marker for steering, however, the tight sandstone and occasional limestone repeatedly showed a decrease in gas levels. The background dropped to around 150-250 units until 14,100' MD.

The next noteworthy total gas increase began at approximately 15,237' MD. This increase was noteworthy for two main reasons. The first is that it was the first time an increase in gas was seen as the bit passed below marker E. The second important note is that the second half of lateral showed higher average hydrocarbon gas levels. Since Sunburst personnel constantly monitor equipment for saturation of the sensor filaments, it is possible that a fracture feed began to increase overall levels.

Gas levels remained steady until passing into marker E at 16,300' MD. Backgrounds decreased quickly to below 400 units on average. It would become commonplace to see gas levels waning as the wellbore intersected Marker E. The *Lindvig 1-35* offset shows considerably less porosity within this interval which is likely to account for reduction in gas levels.

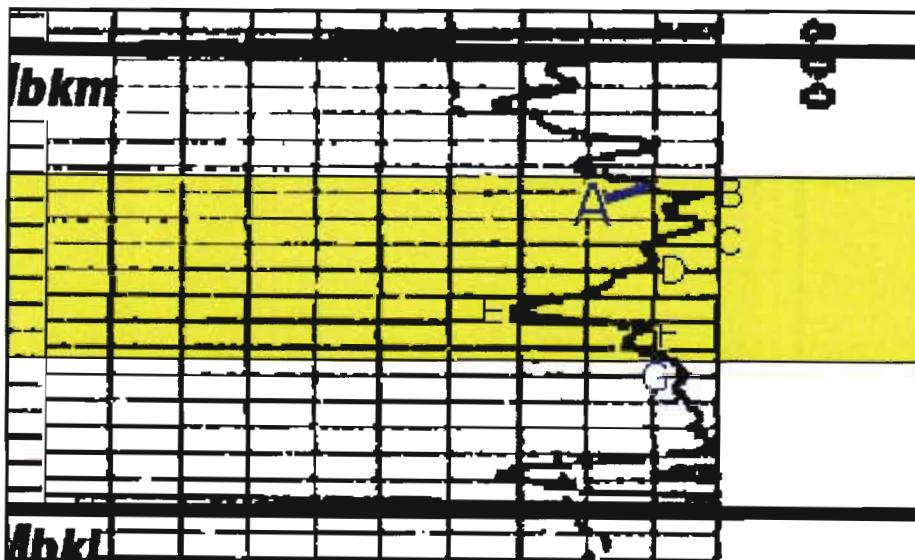


Figure 12: Magnum I-36-25H offset gamma ray signature of the Middle Bakken.

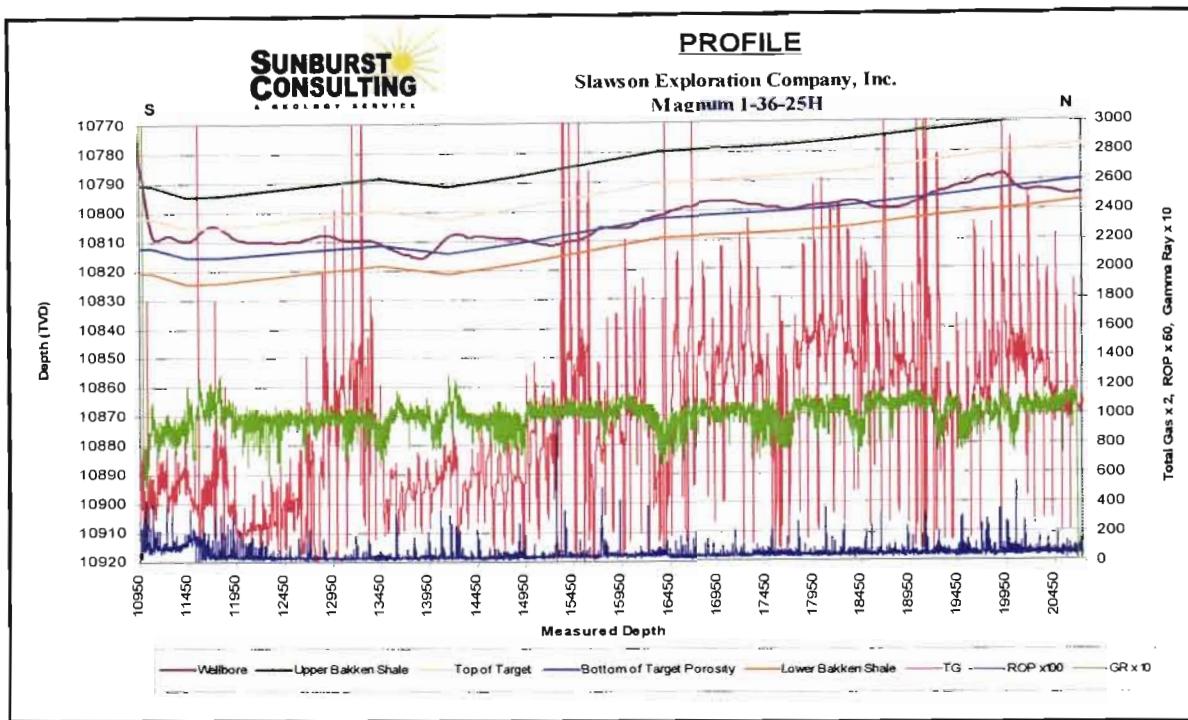


Figure 13: Sunburst profile showing gas levels as tied to lateral progression.

By 16,500' MD the bit had passed through marker E and gas levels resumed climbing. Backgrounds drifted between 500-700 units with the majority of connections reaching over 1,000 units. Lateral gas levels reached a high 18,100' MD. At this point, the bit was hovering low in D just above the E marker. The placement was similar to the gas increase seen earlier in the lateral, suggesting an area of potential porosity.

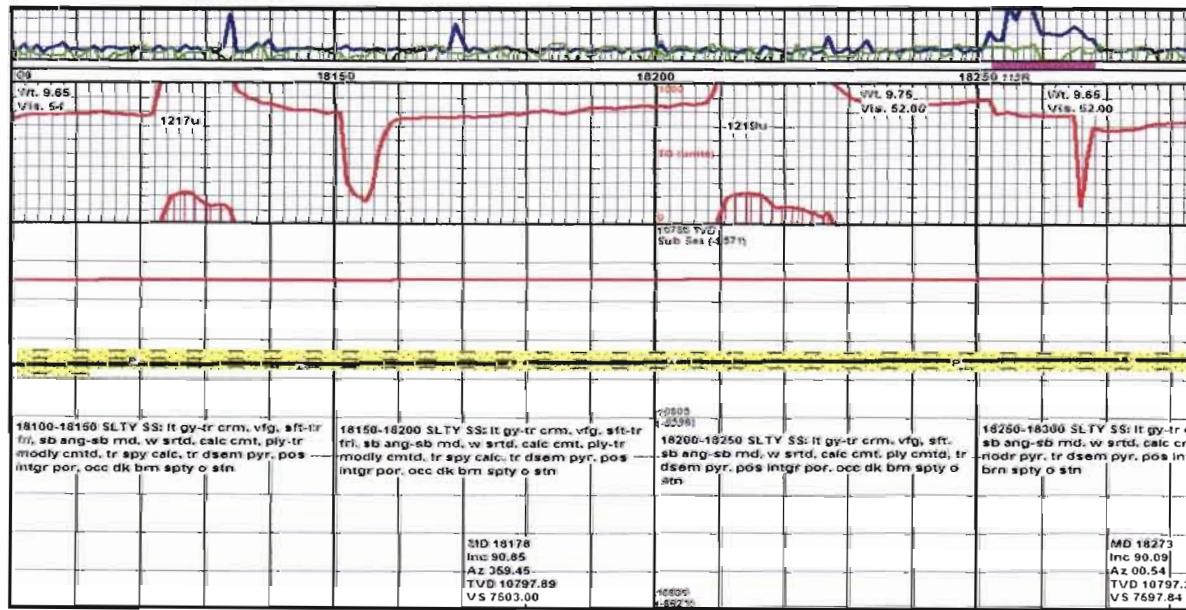


Figure 14: Magnum 1-36-25H log segment showing peak gas levels

Gas levels drop slightly to an average of 700 units with the majority of connections cresting near 1,000 units. A series of pump related downtimes caused an increase in background gases starting just after 19,000' MD. The downtime allowed gas peaks as high as 1,660 units to be recorded. As *Magnum 1-36-25H* approached TD it passed below marker E at 20,033' MD and the characteristic drop in gas was observed. Gas levels recovered slightly and ended the lateral with an average background of 500-600 units.

During the lateral there were two trips to surface for BHA changes. The change outs allowed for the recording of trip gases of 2,600 and 1,700 units. The gas was punctuated by a 15'-20' flare. After reaching TD gas was monitored throughout the wiper trip and a peak of over 2,800 units was observed.

Hydrocarbon Shows by Stratigraphy

The target interval as described by Slawson ranged from marker A to marker F in Figure 12. Multiple offsets showed that markers A through C had identical signatures. Samples also showed very little variation throughout the upper half of zone. It was quickly apparent while drilling that the upper markers would be unreliable for steering since it would be unclear when passing from one marker to the next.

Marker A: This marker made up the first 2' of the zone. Overlying marker A was a dark siltstone with *trace spotty brown oil stain* and low *porosity*. The wellbore passed through this zone only one time while drilling the lateral. Observations while drilling this interval discovered decreased gas levels, increased calcite cementing and an increased content of gray siltstone with *little to no oil staining or no visible porosity*. The first time the marker was encountered at 11,432' MD, gas levels actually decreased to about a third of average background. This is likely due to a combination of increasing silt content and porosity plugged by increased calcite cement.

Marker B: Marker B began about 2' into the target zone and continued until 4' into zone. This facies was encountered early in the tangent section before setting casing. It was similar in nearly every way to marker C. Common characteristics of this marker were increasing siltstone content and a slight increase in pyrite levels. It is important to note that *exceptional porosity* was observed in cuttings and offset electric logs showed porosity up to 13% within this interval. It is unclear how permeable the interval is, but with production fracturing the increased porosity will likely benefit overall production. Oil staining varied little in the brief encounter with this marker. In general, *trace to rare spotty brown oil stain* was seen with areas of *little to no oil staining* also observed. On offsets, the gamma reached 90-100 cps, the same as A and C. During lateral drilling, markers A, B, and C displayed gamma ray measurements between 85-130 cps.

Marker C: Marker C extended from 4'-6' into the target. This marker showed no characteristics to set it apart from others and samples were identical to that of marker B. The C marker was able to be used as a navigational marker as it encompassed the upper hot gamma contact within zone. At around 14,230' MD, the marker was observed and accompanied by a respectable increase in background gas running 100 units higher than lower in formation. The increase in gas could be attributed to the increased porosity exhibited in offset logs.

Marker D: Marker D had very distinct drilling characteristics. The D marker began about 8' from the top of zone and in the lateral averaged a 95-100 cps gamma signature. The first and most notable change in drilling was seen at a TVD of 10,809'. A portion of the D marker would drill as fast as 200 ft/hr, suggesting favorable porosity conditions; however, the interval was small and difficult to track. When the bit entered this "high speed zone" the bit would multiply the angle at which it entered. This caused the bit to pass quickly through the interval despite the angle at which it was encountered. The D marker also had areas of ratty drilling that would cause deflections down. Due primarily to uniform gamma that was seen in the 4' segment that formed marker D, the exact stratigraphic position where these deviations occurred could not be determined. The majority of the lateral was drilled within this marker and most of the increases in background gas can be seen while drilling this interval. The highest average background gas starting around 18,000' MD was drilled within this interval.

Marker E: Marker E ranged from 12'-13' TVD below the top of zone. This interval showed the most variety in sample. At times trace amounts of lime packstone would be observed as well as increased contents of sparry calcite and calcareous cement. In general *trace to rare spotty brown oil staining* was noted. Levels of hydrocarbon gas decreased when the well bore passed through this interval. The drop in gas does coincide with a drop in porosity seen in samples and offset porosity logs.

Marker F: Was found just below zone and shared sample characteristics of marker D. The two zones were identical except for a subtle difference in benchmark gamma. The D marker averaged between 95 and 100 gamma while the F marker ranged from 98 to 105 cps. The distinction of this slight difference was crucial to follow formation and maximizing zone exposure. Like marker C, the silty sandstone of marker F showed *trace to spotty oil stain*.

Geo-Steering

The **target zone** within the Middle Bakken is defined as the 14' zone below gamma marker "MBKMGR" (Marker A). Slawson feels that optimal hydrocarbon production can be achieved with the implementation of an aggressive production frac program regardless of position within the Middle Bakken. The target zone in the Middle Bakken was established based on the samples and electric logs from nearby offset wells. Prognosis predicted 35' of viable zone between the Bakken shales, the first 9' of which is above the desired target. The *Magnum 1-36-25H* required a lateral turn to due north which resulted in the implementation of slides purely for azimuth.

The initial prognosis called for a regional dip of roughly 0.12° down causing the pay zone to drop ~20' over the course of the two section lateral. Despite structural modeling, the majority of *Magnum 1-36-25H*'s lateral was up dip. SM previously drilled a parallel lateral that suggested a near flat formation after an initial climb. Gamma markers from a large collection of offset data showed little to no definition within the targeted interval. An example can be seen in Figure 12 where over half of the target interval is shown to average between 90-100 cps. As the lateral progressed, the "E" marker became the most recognizable and efforts were made to stay structurally near the cool gamma segment to help analyze dip changes with the formation. This practice led to the majority of dip calculations being made from the "E" marker. However,

steering with the E marker could be problematic when trying to determine if the wellbore passed below or above the marker as the lateral progressed

Before casing could be set on the Magnum, a 400' tangent would have to be drilled to cross the hard-line of section 36. The well bore landed at a casing point of 11,529' MD (10,808.58' TVD), approximately 18' TVD into the Middle Bakken and 7' below the "MBKMG" marker (Marker A). The curve was landed within marker D (Figure 12). Before casing, the large bend motor had a tendency to build on rotate, making B the first identifiable marker contacted at 11,432' MD. Calculated dip showed an aggressive 0.58° down dip. Pushing the bit down allowed the motor to reenter zone. A small area of very high porosity sandstone was observed around 10,809' TVD, with drilling sometimes reaching 180 ft/hr. The ambiguous gamma coupled with the relatively thin section of high porosity made it impossible to track.

At 13,348' MD in the lateral, gamma in the range of 75-85 cps and the introduction of packstone in cuttings indicated that the bit had passed into marker "E". The *Lindvig 1-35* showed that marker "E" was structurally 11' from the top of zone. With the marker confirmed, an up dip of 0.20 ° could be calculated. The bit dropped below E until directional slides began to turn the bit back up to zone. The accent began at ~13,757' MD and reacquired the E marker at 14,149' MD. The reentry suggested that dip had reversed falling to 0.23° down. Again, the cooler gamma was accompanied by an increase of limestone in samples.

The bit was allowed to climb up in section until the MWD gamma tool indicated that bit was entering the upper half of zone. As the markers D, C, and B were indistinguishable, the recent contact with marker E was utilized to determine that the encountered 125-130 cps was indicative of marker D. The bit leveled off and slowly fell through zone due to an apparent up dip. Samples within the upper portion of zone showed very little variation with the exception of cementing. The bit slowly passed below marker E at 14,927' MD, suggesting that the target top was around 10,978' TVD. The new data allowed for a dip calculation of 0.29° up.

Despite the expected down dip, formation continued to climb, delaying reentry into zone. Continued directional corrections allowed the bit to pass into zone at 16,350' MD, suggesting that dip had steepened slightly to 0.32° up. It was expected that formation would turn down so the decision to stay close to marker "E" was made. An occasional tap of marker E would serve for dip analysis. As the bit climbed through zone no other indicators were seen. After drilling 1,423', the E marker was seen at 17,680' MD. Dip had flattened to a slight 0.08° up showing possible signs that formation may have rolled.

With the possibility of a downturn, the bit angle was kept low in effort to remain agile in the event that a drop should happen rapidly. The formation indicated that dip was still climbing when the E marker came up to meet the wellbore at 18,410' MD. The marker had climbed ~2' in 730' showing dip had doubled to 0.16° up. The bit was turned around and was pushed back into zone at 19,240' MD, indicating that formation was still building despite suggested structural models.

The bit was allowed to drill along marker D and was encouraged to climb in order to obtain some markers that may be useful for regional mapping. The bit eventually became strata bound

between two thinly separated hard layers that caused large changes in inclination and azimuth. An effort to regain stability was made and the bit was pushed down. It is believed that down sliding was accented by both a bounce from the upper layer and angle exaggeration from passing through the lower layer. The effects caused the bit to dive steeply to where a survey revealed a lateral low angle of 87.53° at 19,957' MD. The resulting drop caused the wellbore to pass through marker E for the last time at 20,033' MD (Figure 15). A final dip calculation of 0.20° up was made and projected 700' to TD. The bit was allowed to rotate as the lateral drew to an end and it began to stabilize with the final survey being above 90°.

The well ended with the bit about 27' below the Upper Bakken Shale at 20,730' MD. The final bottom hole location of *Magnum 1-36-25H* is 10,035.41' North & 524.39' East of surface location or approximately 248.05' FNL & 1,339.39' FWL NE NW Sec. 25 T153N, R101W

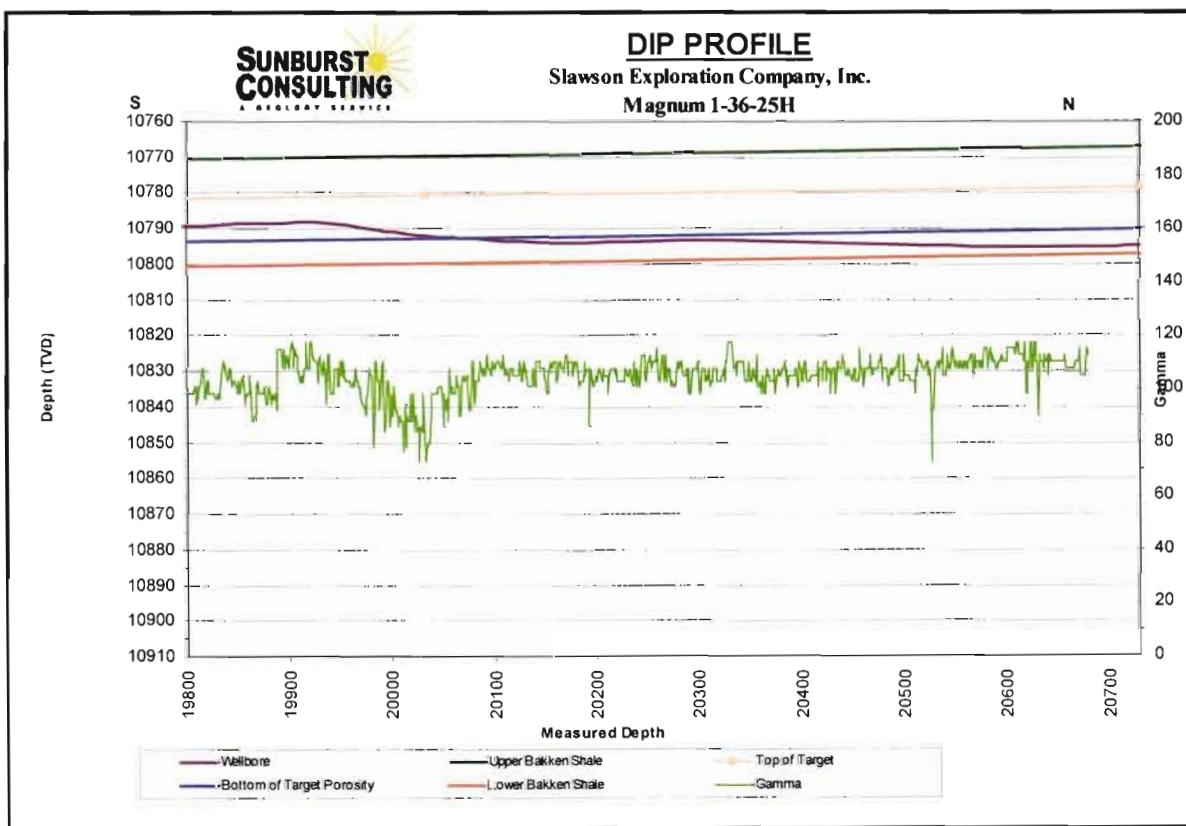


Figure 15: Dip profile showing the final pass through marker E.

Conclusions

The *Magnum 1-36-25H* shows moderate potential for hydrocarbon production. The intervals marked as A, B, and C are recorded to have as much as 13% porosity on offsets. The Slawson fracture program will likely maximize the local porosity matrix and allow for increased production value. Porosity in some cuttings showed calcite occlusion, the levels of which may impact permeability.

SUMMARY

- 1) The *Magnum 1-36-25H* was spud on January 28, 2012 with a Slawson surface spud rig. Nabors 419 drilling rig was accepted on site on February 6, 2012. Vertical operations were completed on February 15, 2012 after being delayed by an under-pressured Mission Canyon.
- 2) Localized depletion of the Mission Canyon made vertical operations difficult; however, quick and effective use of LCM was eventually successful in stopping the rapid loss of drilling fluid.
- 3) A single Security bit drilled a 1,263' MD curve in 86.94 hours for an average drilling rate of 14.52 ft/hr. The overall average was decreased do to the long tangent drill that was required to cross the western hard line.
- 4) Lateral hole drag was reduced with the use of an inline reamer. The ease at which the bit was able to reach bottom while sliding should indicate a nicely groomed wellbore for liner insertion.
- 5) The Slawson Exploration Co. Magnum 1-36-25H awaits completion operations to determine its ultimate production potential. 4" production liner will be set to bottom to facilitate an aggressive fracture stimulation program.

Respectfully submitted,

Brandon Hill
C/o Sunburst Consulting, Inc.
07 March 2012

WELL DATA SUMMARY

OPERATOR: Slawson Exploration Company, Inc

ADDRESS: 1675 Broadway, Suite 1600,
Denver, CO 80202

WELL NAME: Magnum 1-36-25H

API #: 33-053-03943

WELL FILE #: 22247

SURFACE LOCATION: 250' FSL & 815' FWL
SW SW Section 36, T153N, R101W

FIELD/ PROSPECT: Baker Field / Bakken

COUNTY, STATE McKenzie County, North Dakota

BASIN: Williston

WELL TYPE: Middle Bakken Horizontal

ELEVATION: GL: 2,187'
KB: 2,209'

SPUD/ RE-ENTRY DATE: 28 Jan 2012 / 06 Feb 2012

BOTTOM HOLE LOCATION: 10,035.41' N and 524.39' E of surface location or approx.
248.05' FNL & 1,339.39' FWL, NE NW Sec. 25, T153N, R101W

CLOSURE COORDINATES: Closure Direction: 2.99 Deg
Closure Distance: 10,049.09'

TOTAL DEPTH / DATE: 20,730' on March 07, 2012
82% within target interval

TOTAL DRILLING DAYS: 29 days

CONTRACTOR: Nabors #419

<u>PUMPS:</u>	#1 - PZ Gardener 10 (stroke length - 10") 7", 5.5" liner #2 - PZ Gardener 10 (stroke length - 10") 6.5", 5.0" liner
<u>TOOLPUSHERS:</u>	Jason Ehlke, Lonnie Dolney
<u>FIELD SUPERVISORS:</u>	Bill Kinden, Kevin Wehrung
<u>CHEMICAL COMPANY:</u>	Geo
<u>MUD ENGINEER:</u>	Mark Dudley
<u>MUD TYPE:</u>	Fresh water in surface hole Diesel invert in curve and lateral
<u>MUD LOSSES:</u>	Invert Mud: 2363 bbls,
<u>PROSPECT GEOLOGIST:</u>	Bob Bogle
<u>WELLSITE GEOLOGISTS:</u>	Brandon Hill, Eric Benjamin
<u>GEOSTEERING SYSTEM:</u>	Sunburst Digital Wellsite Geological System
<u>ROCK SAMPLING:</u>	30' from 7,670' - 11,510' 50' from 11,500' -20,730' (TD)'
<u>SAMPLE EXAMINATION:</u>	Binocular microscope & fluoroscope
<u>SAMPLE CUTS:</u>	Trichloroethylene (Carbo-Sol)
<u>GAS DETECTION:</u>	MSI (Mudlogging Systems, Inc.) TG- total gas
<u>ELECTRIC LOGS:</u>	Weatherford
<u>DRILL STEM TESTS:</u>	N/A
<u>DIRECTIONAL DRILLERS:</u>	Sperry Sun Tom Cobb, Mike Janes
<u>MWD:</u>	Sperry Sun Aaron Craver, John Thomas Smith, Mike

CASING:

Surface: 9 5/8" 36# J-55 set to 2,160'

Intermediate: 7" 171 JTS 29# HCP 110 , 67 JTS 32# HCP-110
set to 11,529' (note This was a 2 stage cement job with the
first stage set @ 9,400')

SAFETY/ H₂S MONITORING:

Oilind Safety

KEY OFFSET WELLS:

Texas Gas Exploration Corp.

Lindvig 1-35

SE SE Sec. 35, T153N, R101W
McKenzie County, ND

SM Energy Company

Fossum 15-35H

SW SE Section 35, T153N, R101W
McKenzie County, ND

Harper Oil Co.

Verlin Fossum et al. 26-1

NW SE Sec. 26, T153N, R101W
McKenzie County, ND

BOTTOM HOLE LOCATION PLAT

Slawson Exploration Company, Inc.
1675 Broadway, Suite 1600 Denver, Colorado 80202

Magnum 1-36-25H

250 feet from the south line and 815 feet from the west line (surface location)

Section 36, T. 153 N., R. 101 W., 5th P.M.

250 feet from the north line and 815 feet from the west line (bottom hole location)

Section 25, T. 153 N., R. 101 W., 5th P.M.

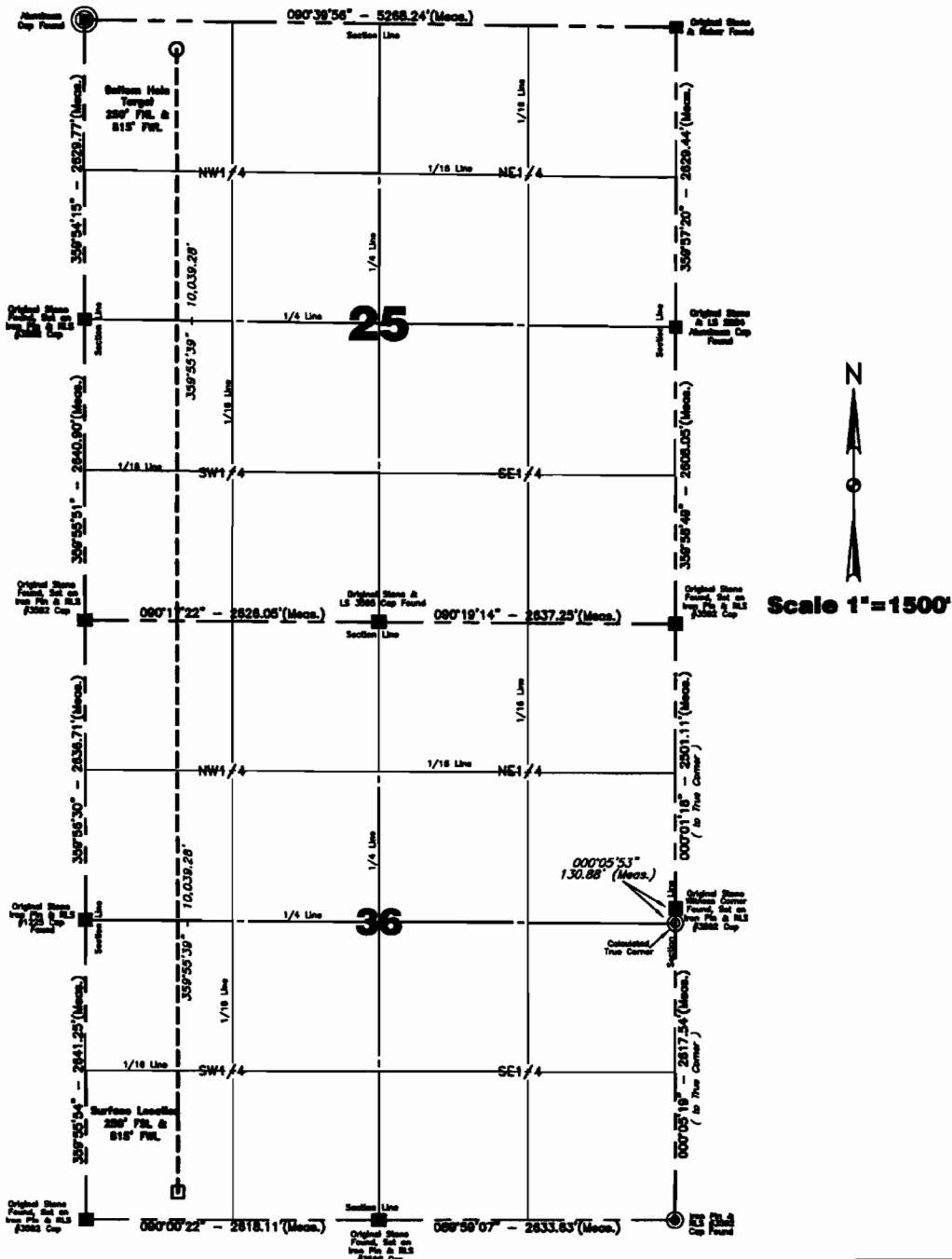
McKenzie County, North Dakota

Surface owner @ well site - Verlin L. Fossum

Latitude 48°01'30.33" North; Longitude 103°37'20.35" West (surface location)

Latitude 48°03'09.39" North; Longitude 103°37'20.48" West (bottom hole location)

[Derived from OPUS Solution NAD-83(CORS96)]



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Computed & Drawn By	Surveyed By	Approved By	Scale	Date
Ryan Jaeger	Greg Holkesvig	Rick Leach	1"=1500'	1/21/2011
Field Book	Material	Revised	Project No.	Drawing No.
OW-Minot-#29	B.H. Layout	8/8/2011	3709493	4

Kadmas
Lee &
Jackson
Engineers Surveyors
Planners

HORIZONTAL SECTION PLAT

Slawson Exploration Company, Inc.
1675 Broadway, Suite 1600 Denver, Colorado 80202

Magnum 1-36-25H

250 feet from the south line and 815 feet from the west line (surface location)

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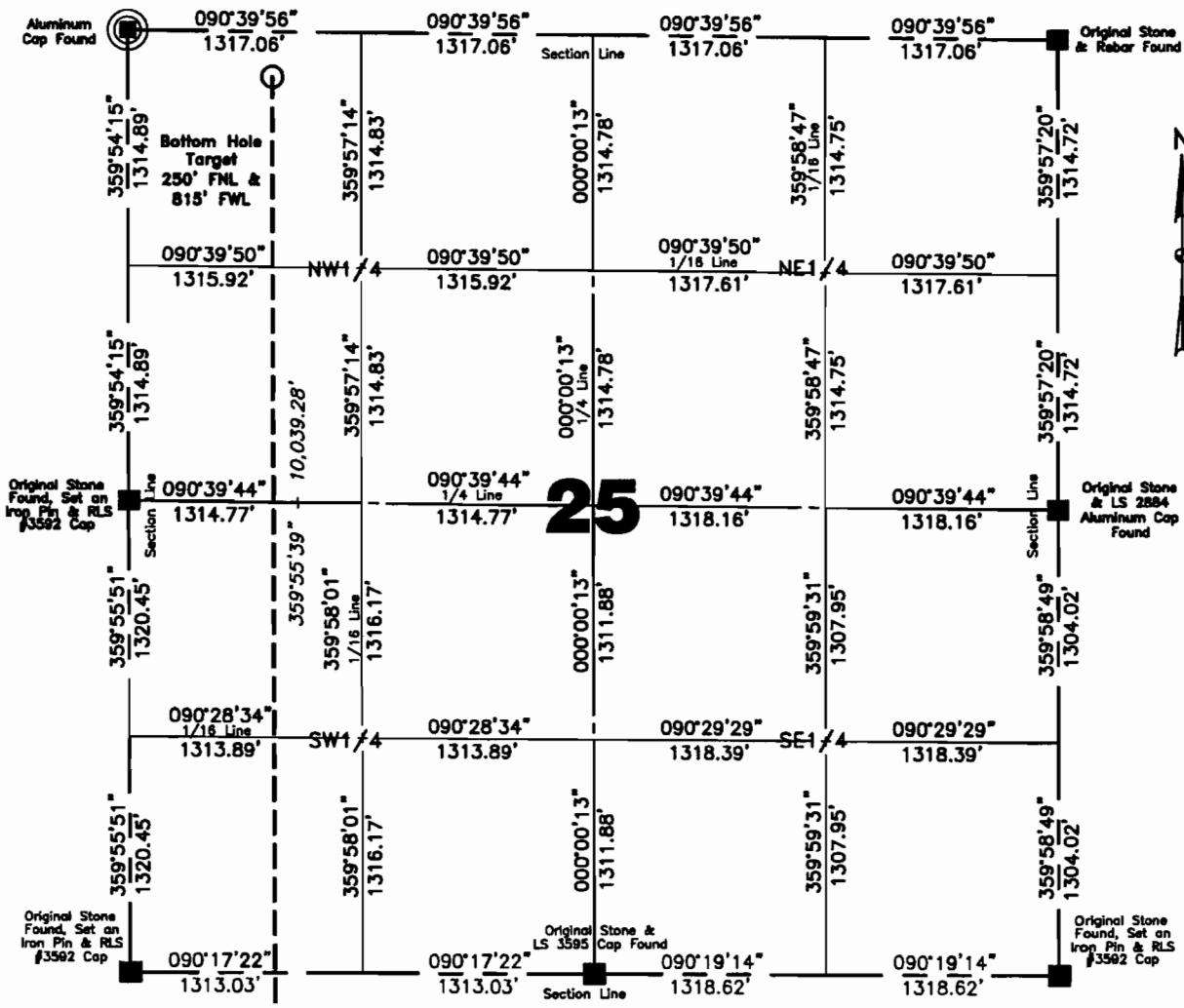
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[Derived from OPUS Solution NAD-83(CORS96)]



Scale 1"=1000'

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All corners shown on this plat were found in the field during Slawson Exploration, Magnum 1-36-25H oil well survey on December 16, 2010. Distances to all others are calculated. All azimuths are based on the east line of the SE1/4 of Section 36, being on an azimuth of 000°05'53".

Surveyed By Greg Holkesvig	Field Book Minot OW-#29
Computed & Drawn By Ryan Jaeger	Project No. 3709493

Revised: 8/8/2011

I, Rick Leach, Professional Land Surveyor, N.D. No. 3496, do hereby certify that the survey plat shown hereon was made by me, or under my direction, from notes made in the field, and the same is true and correct to the best of my knowledge and belief.



Kadrmas
Lee &
Jackson
Engineers Surveyors
Planners

HORIZONTAL SECTION PLAT

Slawson Exploration Company, Inc.
1675 Broadway, Suite 1600 Denver, Colorado 80202

Magnum 1-36-25H

250 feet from the south line and 815 feet from the west line (surface location)

Section 36, T. 153 N., R. 101 W., 5th P.M.

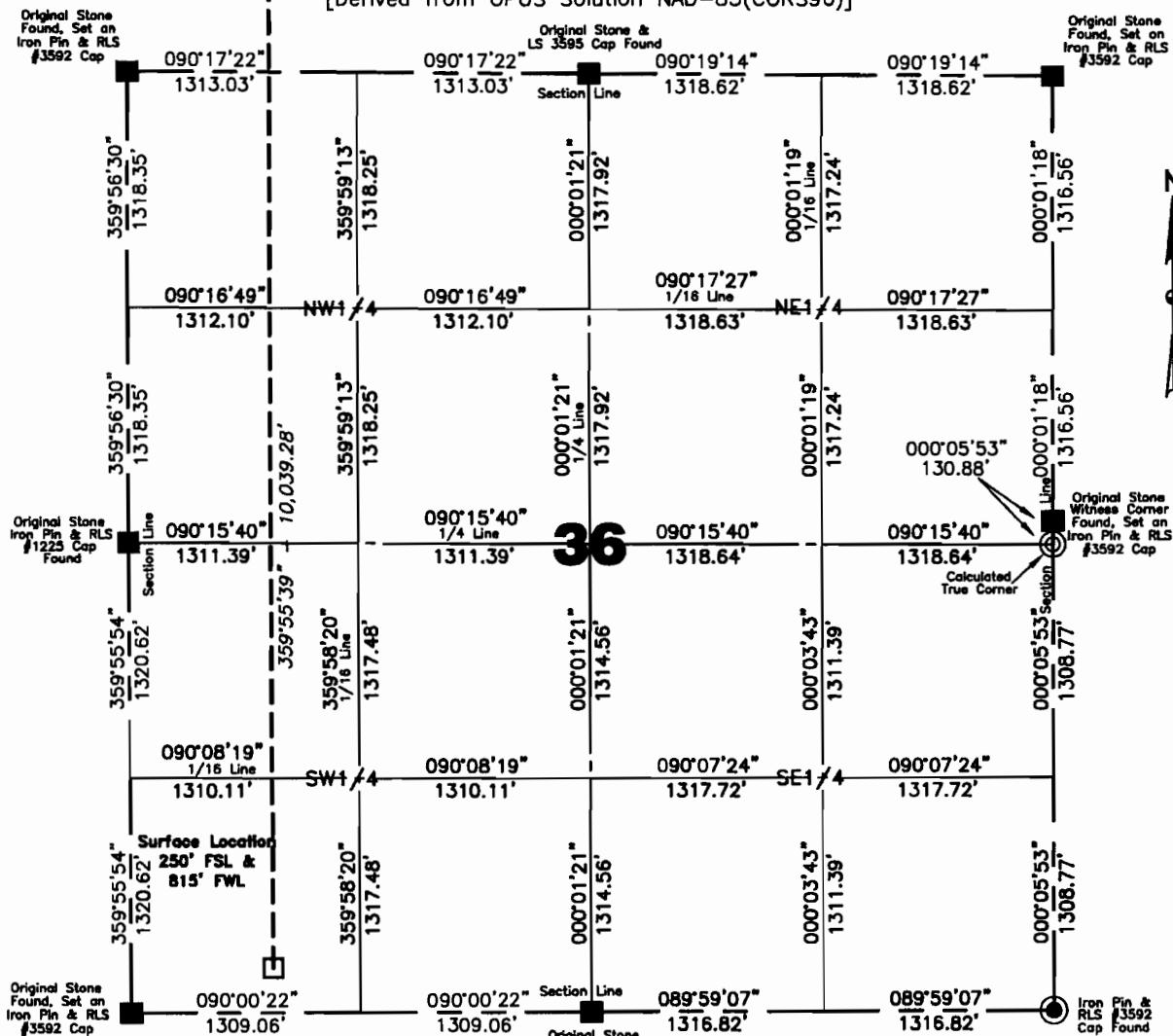
250 feet from the north line and 815 feet from the west line (bottom hole location)

Section 25, T. 153 N., R. 101 W., 5th P.M.

McKenzie County, North Dakota

McKenzie County, North Dakota
Surface owner @ well site = Verlin J. Fossum

Latitude 48°01'30.33" North; Longitude 103°37'20.35" West (surface location)
Latitude 48°03'09.39" North; Longitude 103°37'20.48" West (bottom hole location)
• [Derived from OPUS Solution NAD-83(CORS96)]

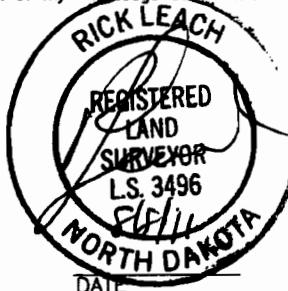


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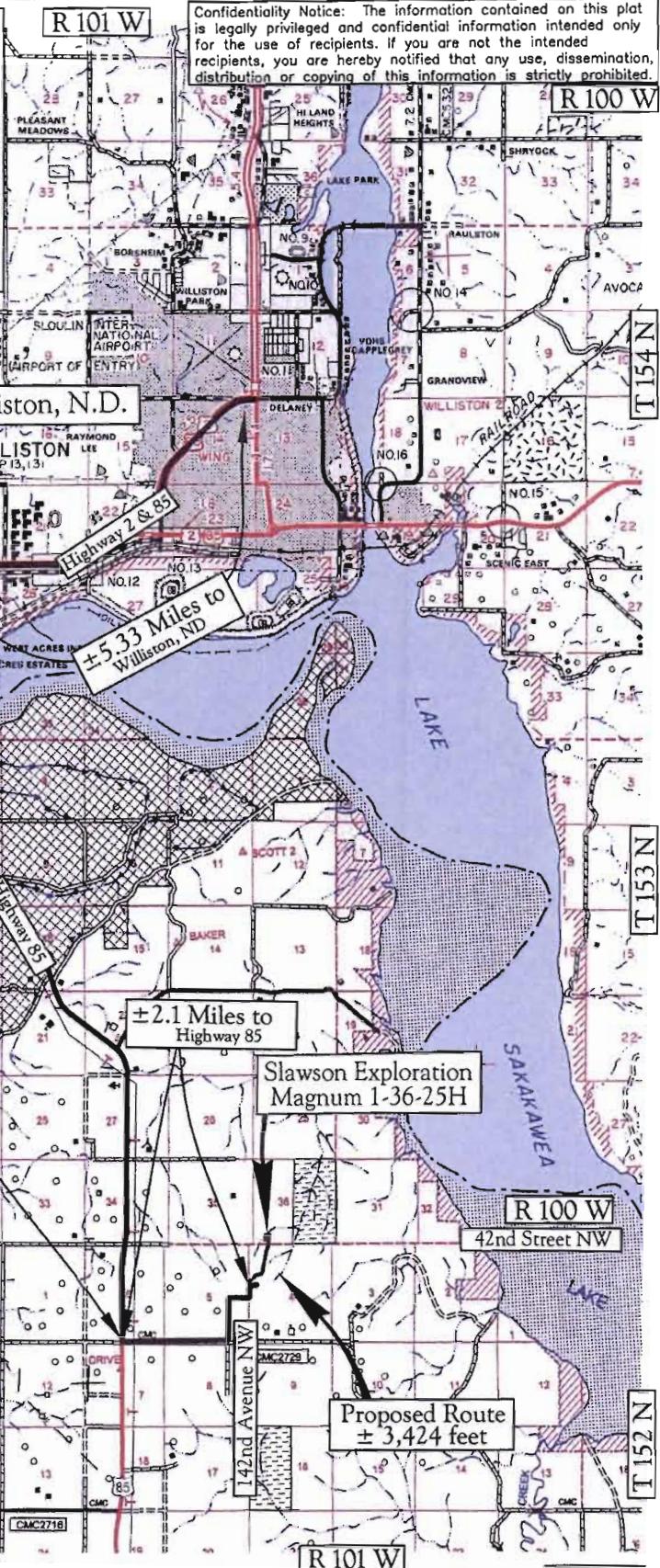


**Kadrmas
Lee &
Jackson**
Engineers Surveyors
Planners

Surveyed By Greg Holkesvig	Field Book Minot OW-#29
Computed & Drawn By Ryan Jaeger	Project No. 3709493

Revised: 8/8/2011

Slawson Exploration Co., Inc.
 Magnum 1-36-25H
 250' FSL & 815' FWL
 SW1/4SW1/4 Section 36
 T.153N., R.101W., 5th P.M.
 McKenzie County, ND



Legend

Existing Roads —

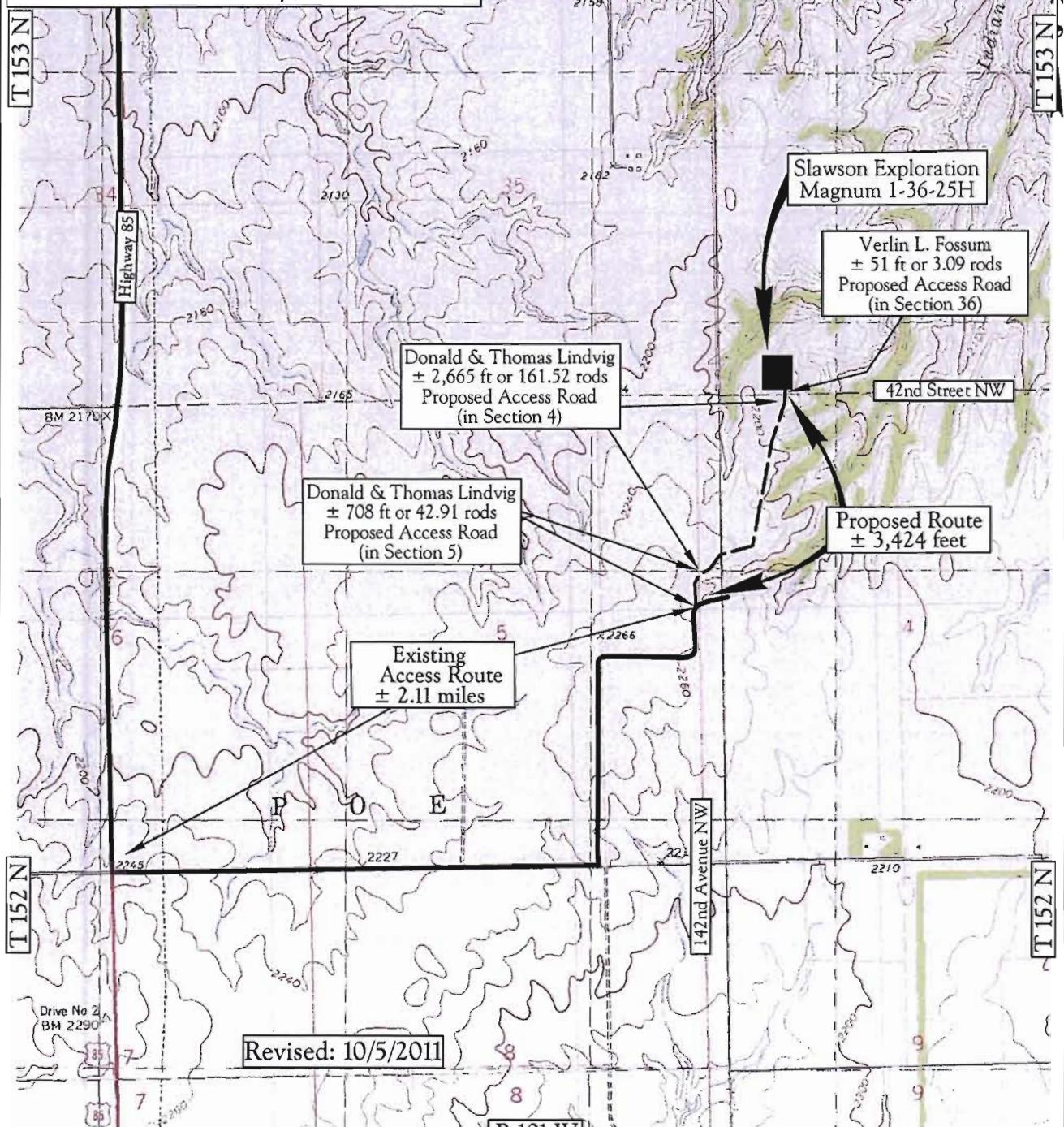
Proposed Roads - - -

Scale 1"=2 Miles

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Planners

Slawson Exploration Co., Inc.
Magnum 1-36-25H
250' FSL & 815' FWL
SW1/4SW1/4 Section 36
T.153N., R.101W., 5th P.M.
McKenzie County, ND

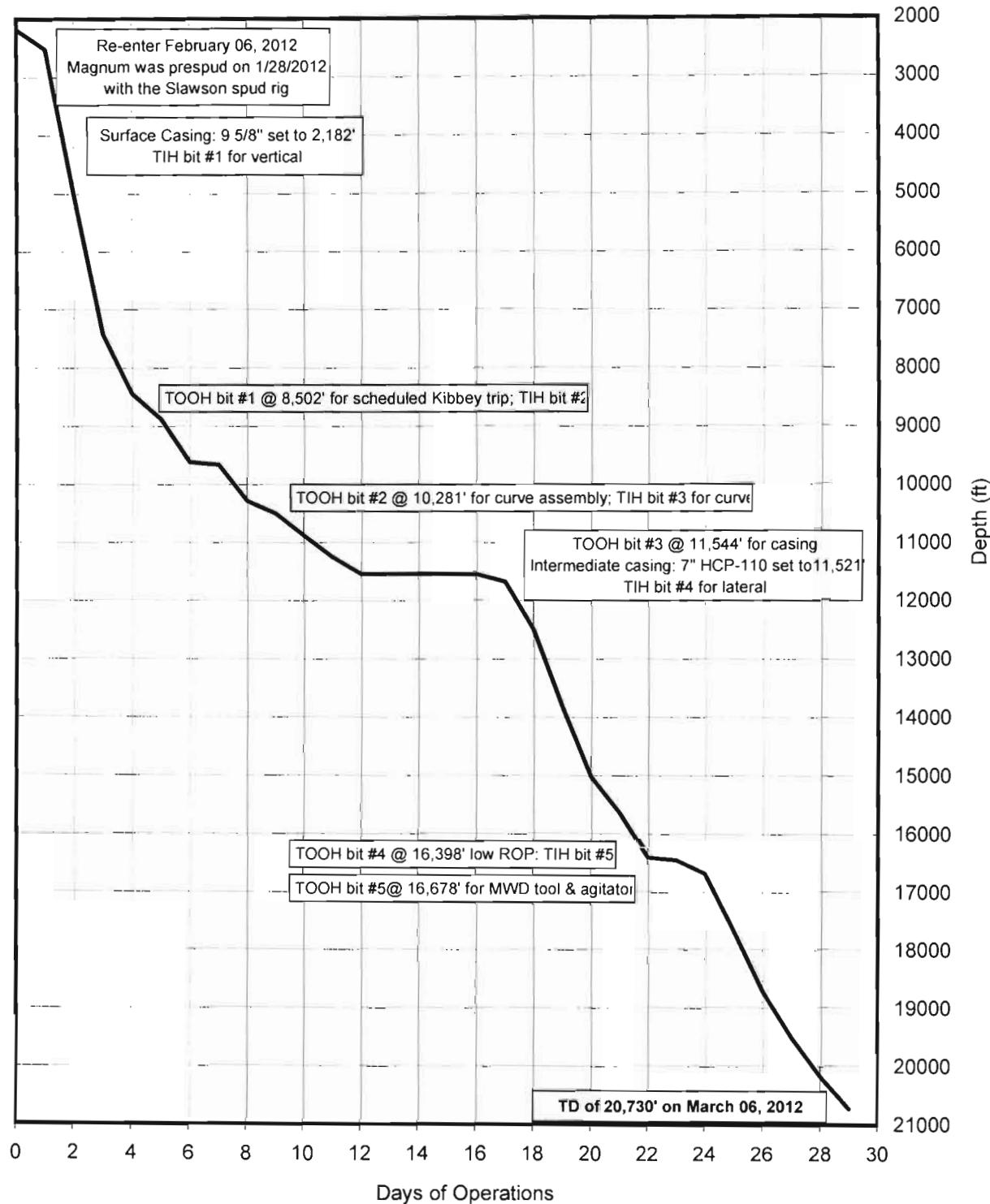
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TIME VS DEPTH

Slawson Exploration Company, Inc

Magnum 1-36-25H



DAILY DRILLING SUMMARY

Day	Date 2012	Depth (0600 Hrs)	24 Hr Footage	Bit #	WOB (Klbs) RT	WOB (Klbs) MM	RPM (RT)	RPM (MM)	PP	SPM 1	SPM 2	GPM	24 Hr Activity	Formation
0	2/7	2,182'	-	1	-	-	-	-	-	-	-	-	Rig up. Check off pre-spud checklist.Nipple up BOP, install saver sub and take on invert mud.Rig accepted @ 18:00 on 2/6/12	Pierre
1	2/8	2,525'	343	1	25		50	-	1820	100	-	456	N/U BOP.Test BOP, 250/5000, annular 250/3500 and casing 1500.Install wear bushing.Pick up BHA.Trip in the hole.Service rig.Install rotating head rubber.Displace hole with invert mud, circulate through gas buster and choke manifold.Drill float collar cement and shoe @ 2182'.Drill from 2182' to 2525', 86 fph. (Having problems with Baylor Brake).	Pierre
2	2/9	5,022'	2,497	1	25	-	50	-	2510	100	-	359	Drill from 2525 - 2923 rop = 88 fph. Repair top drive HPU (downtime). Drill from 2923 - 4304 ROP = 172.6 fph. Rig service. Drill from 4304 - 5022 ROP = 159.5 fph.	Dakota
3	2/10	7,428'	2,406	1	15	-	15	544	2250	105	-	499	Drilling 5022'-5256', Service rig, Drilling 5256'-6306', Service rig, Drilling 6306'-7428'	Amsden
4	2/11	8,448'	1,020	1	25		50	544	2350	105	-	499	Drilling 7428'-7832', Service rig, Drilling 7832'-8094', Drilling 8094'-8134', Service rig, Downtime-mud pump, Drilling 8134'-8213', Downtime-instrumentation, Drilling 8213'-8448'	Tyler
5	2/12	8,884'	436	2/1	25	-	50	544	2670	105	-	499	Drilling 8448'-8502', TOOH, Downtime-drawworks airline for master clutch, TOOH, TIH, Change rotating head rubber, Service rig, Drilling 8502'-8884'	Charles
6	2/13	9,613'	729	2	20	-	50	544	2615	105	-	499	Drilling 8881'-9454', Service top drive-blocks crown, Drilling 94547'-9613', Circulate and condition due to lost circulation, Downtime-engines, Service rig, Circulate and condition due to lost circulation, TOOH	Mission Canyon
7	2/14	9,660'	47	2	15	-	50	414	1900	80	-	380	TOOH, Change rotating head rubber, TOOH, L/D BHA, Build volume-weight P/U BHA, TIH, Change rotating head rubber, TIH, Circulate and condition and pump LCM pill, Drilling 9613'-9621', Build volume-weight, Drilling 9621'-9660'	Mission Canyon
8	2/15	10,281'	621	2	24	-	50	414	1643	80	-	380	Drilling 9660'-10177', Drilling 10177'-10281', Circulate and condition flow check-monitor well-spot pill, TOOH, Change rotating head rubber, TOOH	Lodgepole
9	2/16	10,495'	214	3	20	26	25	124	3100	-	90	428	TOOH, L/D BHA, P/U BHA, TIH, Change rotating head rubber, TIH, Open hole logs, Drilling 10281'-10354', Service rig, Drilling 10354'-10495'	Lodgepole
10	2/17	10,887'	392	3	20	28	25	276	2722	100	100	950	Drilling 10495'-10640', Service rig, Drilling 10640'-10744', Drilling 10744'-10887'	Lodgepole
11	2/18	11,250'	363	3	22	-	45	110	1500	-	96	394	Drilling 10887'-11040', Service rig, Drilling 11040'-11250'	Lodgepole
12	2/19	11,544'	294	3	17	33	25	138	2583	-	100	475	Drilling 11250'-11477', Drilling 11477'-11544', Working as directed by operator flow check and monitor well, Short TOOH, Circulate and condition, Back reaming	Middle Bakken

DAILY DRILLING SUMMARY

Day	Date 2012	Depth (0600 Hrs)	24 Hr Footage	Bit #	WOB (Klbs) RT	WOB (Klbs) MM	RPM (RT)	RPM (MM)	PP	SPM 1	SPM 2	GPM	24 Hr Activity	Formation
13	2/20	11,544'	0	-	-	-	-	-	-	-	-	-	Back reaming, Short TOOH, Back reaming, TIH, Spot pill, TOOH, Change rotating head rubber, TOOH, L/D BHA, Install/remove wear bushing, Rig up to run casing and hold meeting, Run casing, Service rig, Downtime-mud system, Run casing	Middle Bakken
14	2/21	11,544'	0	-	-	-	-	-	-	-	-	-	Run casing, Waiting on 3rd party personnel, Run casing, Rig down casing run, Circulate and condition, Circulate cement-displace-rig up	Middle Bakken
15	2/22	11,544'	0	-	-	-	-	-	-	-	-	-	Rig down casing cementers, Install wellheads rotating head, Service rig, L/D drill pipe out of derrick, L/D BHA out of derrick, Rig down 5" elevators-saver subs-5" gripper block, Remove from floor lifting subs-5" dart valve-FOSV, Rig up 4" elevators saver sub-gripper blocks, Brought up to floor 4" dart valve FOSV, Rig up tester	Middle Bakken
16	2/23	11,544'	0	4	-	-	-	-	-	-	-	-	Test BOPs, Service rig, Clean out mud system, Clean trough tank 6 shakers, Change liners, P/U BHA, P/U drill pipe	Middle Bakken
17	2/24	11,669'	125	4	20	20	25	428	2350	85	85	404	P/U drill pipe, Displace to oil base, Drill out pack packer and strap pipe, P/U drill pipe, Change rotating head rubber and L/D joints, Change rotating head/rubber, L/D joints, Circulate and condition through choke manifold and gas buster, Change casing sensor on manifold, Test wellhead casing @ 3000PSI, Circulate and condition through gas buster, Cut drilling line, Reaming washing, Drilling 11544'-11669'	Middle Bakken
18	2/25	12,490'	821	4	13	22	50	479	2660	95	0	452	Drilling 11663'-11694', TOOH 3 stands survey depth and pull back up 2 stands, Directional surveys log for gamma, Rig service, Drilling 11694'-11971', Drilling 11971'-12388', Service top drive-compound block, Drilling 12388'-12490'	Middle Bakken
19	2/26	13,819'	1,329	4	15	30	50	937	2580	93	93	884	Drilling 12491'-12595', Service rig, Drilling 12595'-12695', Downtime-mud pump, Circulate and condition bottoms up for sample, Drilling 12695'-13161' Drilling 13161'-13711', Service rig-top compound, Drilling 13711'-13819'	Middle Bakken
20	2/27	15,015'	1,196	4	18	38	50	932	2630	92	93	879	Drilling 13819'-14278', Service rig, Drilling 14278'-14373', Drilling 14373'-14753', Service rig-top drive compound, Drilling 14753'-15015'	Middle Bakken
21	2/28	15,630'	615	4	12	43	50	286	3200	92	0	270	Drilling 15008'-15566', Drilling 15566'-15606', Service top drive, Circulate and condition, Pump pill, TOOH to shoe, Service rig-top drive, TIH, Circulate and condition bottoms up, Change rotating head/rubber, Drilling 15606'-15630'	Middle Bakken
22	2/29	16,398'	768	4	13	43	50	286	3300	92	0	270	Drilling 15630'-15986', Service rig, Drilling 15986'-16081', Drilling 16081'-16398', TOOH, Change rotating head rubber, TOOH	Middle Bakken

DAILY DRILLING SUMMARY

Day	Date 2012	Depth (0600 Hrs)	24 Hr Footage	Bit #	WOB (Klbs) RT	WOB (Klbs) MM	RPM (RT)	RPM (MM)	PP	SPM 1	SPM 2	GPM	24 Hr Activity	Formation
23	3/1	16,445'	47	5	11	0	50	249	3800	0	80	235	TOOH, Service rig, TOOH, L/D BHA, P/U BHA, TIH, P/U BHA fill pipe, P/U agitator and test, L/D same, Break crossover and swedge, TIH, Cut drilling line, TIH, P/U HWDP, TIH, Change rotating head rubber, Reaming and washing, Drilling 16398'-16445'	Middle Bakken
24	3/2	16,678'	233	5	10	20	50	249	3390	90	0	235	Drilling 16445'-16589', Directional work switch data rate, Drilling 16589'-16678', Circulate and condition flow check, Pump pill, Change rotating head rubber, TOOH, L/D BHA, P/U BHA, Service rig, TIH	Middle Bakken
25	3/3	17,658'	980	5	10	31	50	255	3300	82	0	241	TIH, Change rotating head rubber, Circulate and condition fill pipe and survey, Directional work relog hole, Drilling 16678'-16710', Service rig, Directional work relog, Drilling 16710'-17166', Drilling 17116'-17593', Downtime-mud pump, Drilling 17593'-17630', Service rig, Drilling 17630'-17658'	Middle Bakken
26	3/4	18,700'	1,042	5	12	40	50	255	3800	82	0	241	Drilling 17657'-18245', Drilling 18245'-18700', Change rotating head rubber	Middle Bakken
27	3/5	19,501'	801	5	14	49	50	260	3880	0	101	245	Drilling 18700'-19046', Service rig, Drilling 19046'-19110', Downtime-mud pump, Drilling 19110'-19136', Service rig, Downtime-mud pump, Drilling 19136'-19501'	Middle Bakken
28	3/6	20,172'	671	5	15	54	50	260	3300	0	101	245	Drilling 19508'-19632', Service top drive-blocks-compound, Drilling 19632'-19911', Downtime-mud pump, Service rig, Drilling 19911'-20172'	Middle Bakken
29	3/7	20,730'	1,229	5	13	-	50	262	3200	0	102	251	Drilling 20173'-20192', Service rig, Drilling 20192'-20649', Drilling 20649'-20730', Circulate and condition pump sweep and dry job, Survey, TOOH	Middle Bakken

DAILY MUD SUMMARY

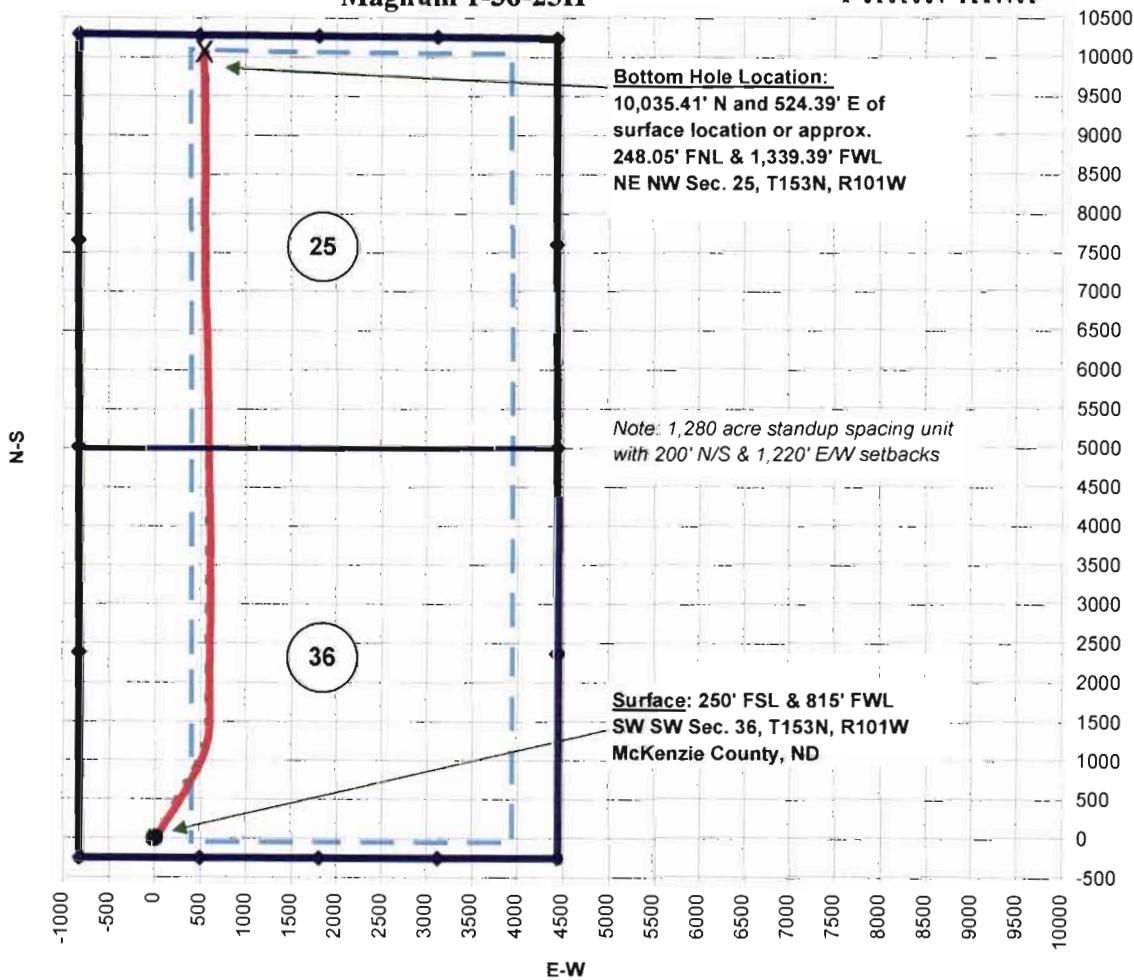
Day	Date 2012	Mud Depth	Mud WT (ppg)	VIS (sec/qt)	PV (cP)	YP (lbs/100 ft ²)	Gels (lbs/100 ft ²)	600/300	NAP/H ₂ O (ratio)	NAP/H ₂ O (%) by vol)	Cake (API/HTHP)	Cor. Solids (%)	Alk	Excess Lime (lb/bbl)	Cl ⁻ (mg/L)	LGS/ HGS (%)	Salinity (ppm)	Electrical Stability	Gain/Loss (bbls)
0	02/07	2,182'	10	85	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1	02/08	2,525'	9.88	94	12	7	-	-	-	-	2	10.35	1.1	1	37k	-	-	880	4
2	02/09	5,022'	9.6	64	10	12	8/8	-	78/22	-	2	11.53	-	1	38k	-	291886	960	-
3	02/10	7,734'	9.8	67	13	15	9/10	41/28	78/22	70.00/19.41	2	10.59	1	1.3	33k	5.73/4.86	278152	780	-1
4	02/11	8,502'	10	63	14	12	8/9	40/26	78/22	69.00/19.41	2	11.59	1.1	1.43	33k	6.29/5.30	278152	810	-24
5	02/12	9,363'	9.8	57	14	7	7/8	35/21	79/21	69.50/18.97	2	11.53	1	1.3	34k	7.77/3.76	291886	760	+73
6	02/13	9,613'	9.5	39	8	1	2/2	17/9	82/18	79.00/16.83	-	4.17	1.5	1.95	31k	-5.32/9.49	302345	420	-396
7	02/14	9,884'	9.7	55	12	8	5/6	32/20	77/23	70.00/21.17	2	8.83	1.1	1.43	37k	3.55/5.28	286110	400	-409
8	02/15	10,281'	10	-	13	8	4/5	34/21	76/24	70.00/22.54	2	7.46	1.2	1.56	45k	-0.89/8.35	311818	360	-108
9	02/16	10,625'	9.8	44	14	8	5/6	36/22	76/24	69.00/21.90	2	9.1	1	1.3	41k	3.68/5.42	305811	300	-153
10	02/17	10,998'	9.8	43	12	8	5/5	32/20	77/23	70.00/20.29	2	9.71	0.9	1.17	40k	4.68/5.04	311818	300	-152
11	02/18	11,359'	9.8	44	13	8	5/6	34/21	78/22	70.00/19.93	2	10.07	1.35	1.76	33k	5.05/5.02	272376	455	-363
12	02/19	11,544'	10.1	-	13	9	5/6	35/22	80/20	71.00/17.86	2	11.14	1.5	1.95	32k	4.69/6.46	291886	445	-141
13	02/20	11,544'	10.1	-	13	10	5/6	36/23	80/20	71.00/17.94	2	11.06	1.5	1.95	33k	4.59/6.47	301190	450	-279
14	02/21	11,544'	10.1	-	13	10	5/6	36/23	80/20	71.00/17.94	2	11.06	1.5	1.95	33k	4.59/6.47	301190	450	-
15	02/22	11,544'	10.1	-	13	10	5/6	36/23	80/20	71.00/17.94	2	11.06	1.5	1.95	33k	4.59/6.47	301190	450	-
16	02/23	11,544'	10.1	57	18	21	11/13	57/39	69/31	63.00/28.57	2	8.43	2.1	2.73	45k	0.73/7.70	257675	500	-
17	02/24	11,780'	9.7	57	18	17	9/9	53/35	68/32	62.00/29.57	2	8.44	2.05	2.67	45k	4.08/4.36	248935	520	-289
18	02/25	12,690'	9.7	63	16	21	11/12	53/37	70/30	65.00/27.48	2	7.53	2.1	2.73	43k	1.74/5.78	256520	550	-
19	02/26	13,995'	9.6	51	14	14	8/9	42/28	74/26	68.00/23.44	2	8.56	2.1	2.73	42k	4.33/4.23	291886	750	-4
20	02/27	15,489'	9.7	53	13	14	6/7	40/27	74/26	68.00/23.39	2	8.61	2	2.6	41k	3.55/5.05	287265	900	-17
21	02/28	15,775'	9.7	60	14	13	7/8	41/27	76/24	69.00/21.59	2	9.41	1.9	2.47	36k	4.79/4.62	273531	950	-
22	02/29	16,398'	10.1	72	21	6	7/8	48/27	76/24	72.00/16.91	2	11.1	1.6	2.08	42k	4.50/6.60	311818	1000	-
23	03/01	16,678'	9.7	60	14	13	8/9	41/27	79/21	70.00/19.16	2	10.84	1.1	1.43	46k	7.66/3.19	311818	990	-7
24	03/02	16,830'	9.7	70	15	13	8/11	43/28	79/21	72.00/18.60	2	9.4	1.35	1.76	45k	4.43/4.97	311818	1050	-
25	03/03	17,840'	9.7	55	16	15	10/11	47/31	79/21	72.00/18.60	2	9.4	2.25	2.93	43k	4.43/4.97	311818	1090	-
26	03/04	18,835'	9.7	54	15	14	9/10	44/29	79/21	72.00/18.88	2	9.12	1.55	2.02	42.5k	3.89/5.24	311818	1075	-16
27	03/05	19,790'	9.7	58	15	14	10/11	44/29	79/21	72.00/18.60	2	9.4	1.5	1.95	41k	4.43/4.97	311818	1095	-
28	03/06	20,278'	9.8	56	14	13	9/10	41/27	80/20	72/17.47	2	10.53	1.1	1.43	40k	5.81/4.72	311818	1105	-
29	03/07	20,278'	9.8	56	14	13	9/10	41/27	80/20	72/17.47	2	10.53	1.1	1.43	40k	5.81/4.72	311818	1105	-

BIT RECORD

Bit #	Size	Type	Make	Model	Serial #	Jets	Depth In	Depth Out	Footage	Hours	Accum. Hours	Vert. Dev.
1	8 3/4	PDC	ULTERRA	U616M	M10409	0.902	2,180'	8,502'	6,322'	66.5	66.50	Vertical
2	8 3/4	PDC	ULTERRA	U616M	M10638	6x32	8,502'	10,281'	1,779'	32	98.50	Vertical
3	8 3/4	PDC	HDBS	FXD55M	11662729	5x18	10,281'	11,544'	1,263'	86.94	185.44	Curve
4	6	PDC	Schlumberger	SDi513	JF2538	5x16	11,544'	16,398'	4,854'	99.5	284.94	Lateral
5	6	PDC	HDBS	FX64	11966874	6x20	16,398'	20,730'	4,332'	85.71	370.65	Lateral

PLAN VIEW

Slawson Exploration Company, Inc.
Magnum 1-36-25H

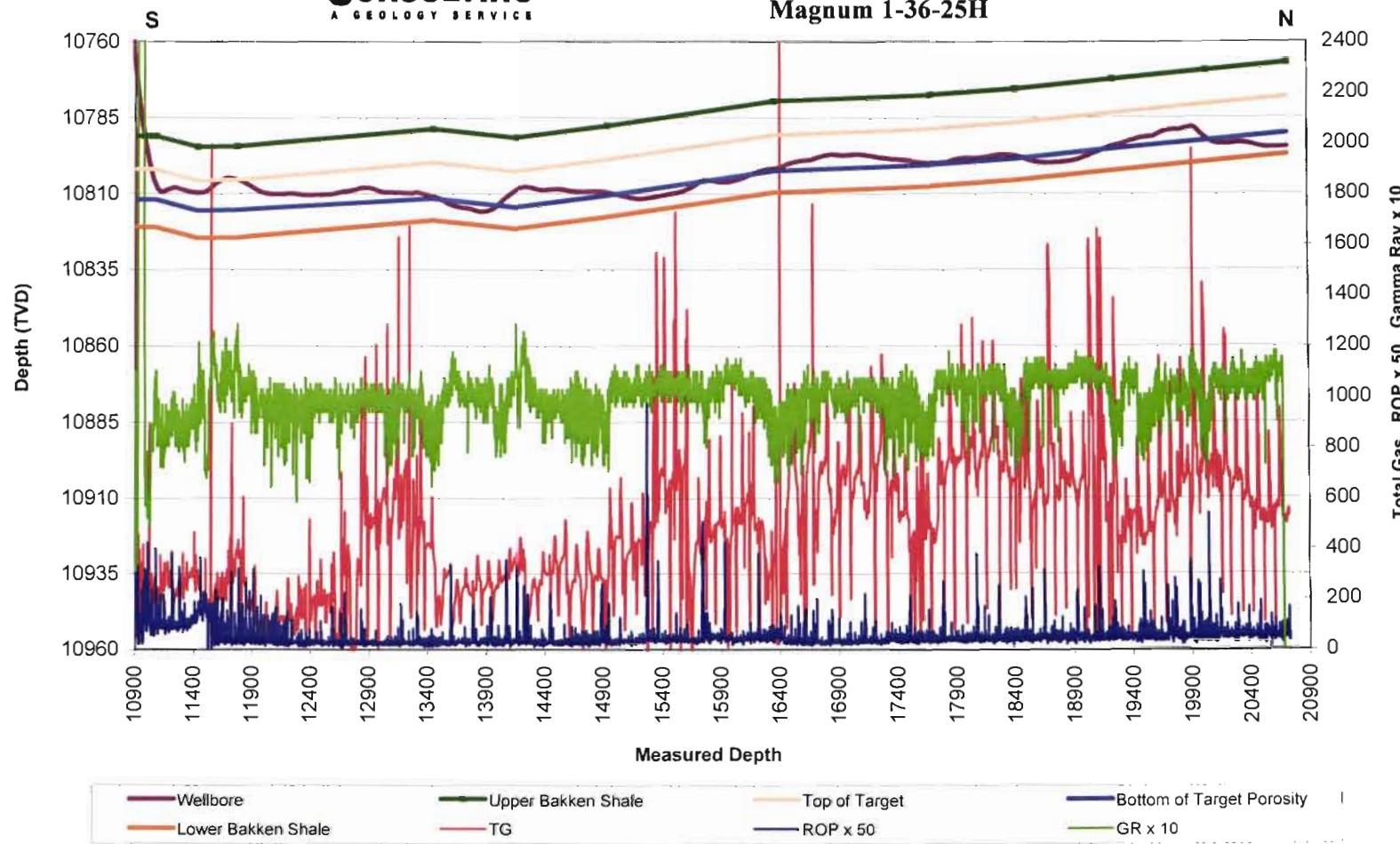




PROFILE

Slawson Exploration Company, Inc.

Magnum 1-36-25H



FORMATION MARKERS & DIP ESTIMATES

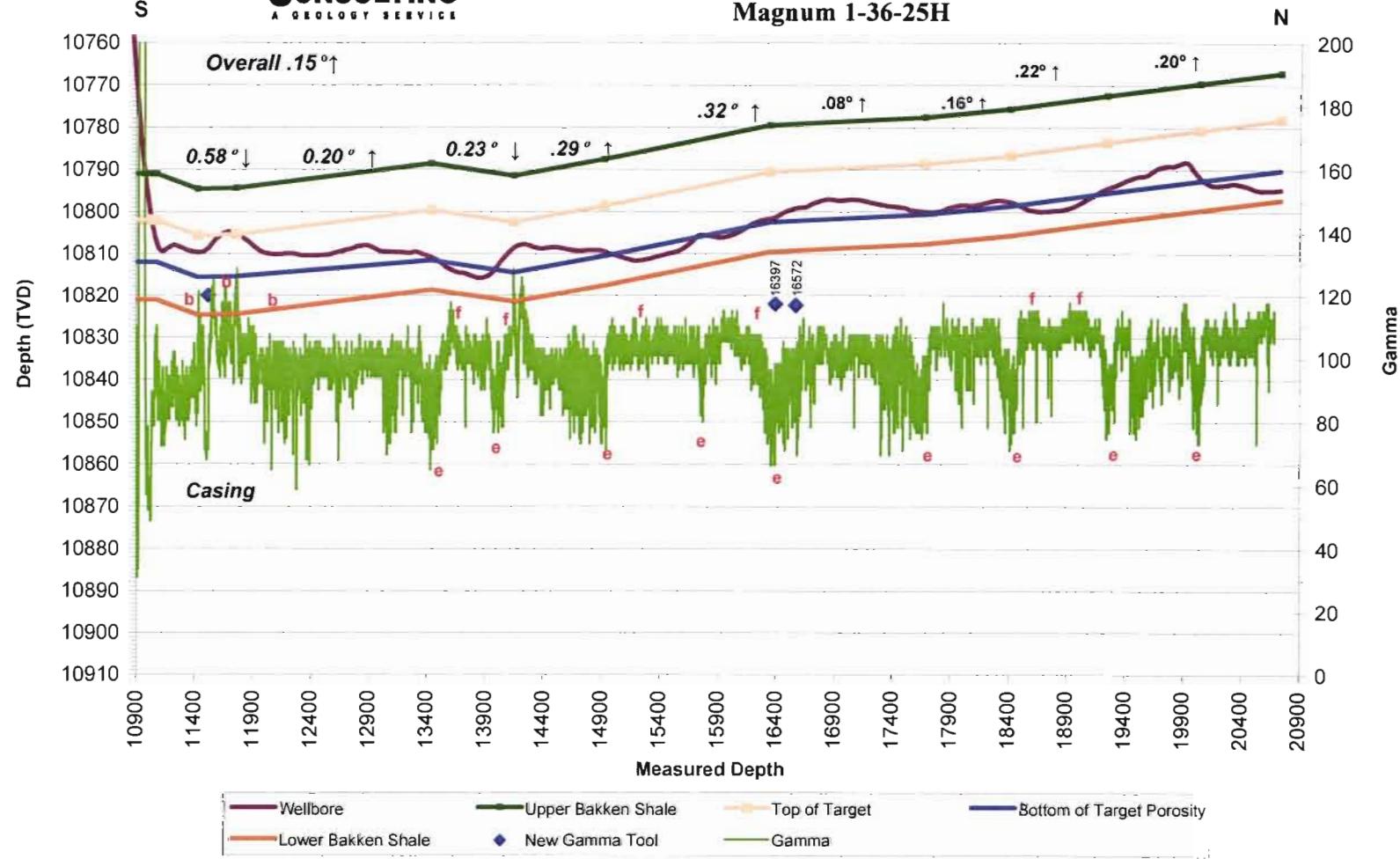
Slawson Exploration Company, Inc. - Magnum 1-36-25H

Dip Change Points	MD	TVD	TVD diff.	MD diff.	Dip	Dipping up/down	Type of Marker
Middle Bakken markers							
	11,080'	10,802.00					
	11,432'	10,805.59	3.59	352	-0.58	Down	Gamma
	11,761'	10,805.40	-0.19	329	0.03	Up	Gamma
	13,438'	10,799.56	-5.84	1677	0.20	Up	Gamma
	14,149'	10,802.40	2.84	711	-0.23	Down	Gamma
	14,927'	10,798.50	-3.90	778	0.29	Up	Gamma
	16,350'	10,790.44	-8.06	1423	0.32	Up	Gamma
	17,680'	10,788.55	-1.89	1330	0.08	Up	Gamma
	18,410'	10,786.56	-1.99	730	0.16	Up	Gamma
	19,240'	10,783.38	-3.18	830	0.22	Up	Gamma
	20,033'	10,780.55	-2.83	793	0.20	Up	Gamma
	20,730'	10,778.10	-2.45	697	0.20	Up	Projected
Gross Dip							
Initial Target Contact	11,076'	10,803.00					
Final Target Contact	20,730'	10,778.10	-24.90	9654	0.15	Up	Gamma



DIP PROFILE

Slawson Exploration Company, Inc.
Magnum 1-36-25H



SUNBURST CONSULTING, INC.

Operator:	Slawson Exploration Company, Inc.	
Well :	Magnum 1-36-25H	
County:	McKenzie	State: ND
QQ:	SW SW	Section: 36
Township:	153	N/S: N
Range:	101	E/W: W
Footages:	250	FN/SL: S
	815	FE/WL: W

Kick-off	2/15/2012
Finish:	3/6/2012
Directional Supervision:	
Sperry	

Date: 3/14/2012
 Time: 9:21
F9 to re-calculate

Proposed dir: 3.23

Minimum Curvature Method (SPE-3362)

[North and East are positive and South and West are negative, relative to surface location]

No.	MD	INC	TRUE				DLS/	
			AZM	TVD	N-S	E-W	SECT	100
Tie	9506.00	0.44	263.55	9505.25	10.02	23.24	18.90	0.54
1	9541.00	0.46	293.91	9540.25	10.06	22.98	11.34	0.68
2	9636.00	0.13	208.26	9635.24	10.12	22.58	11.37	0.49
3	9732.00	0.62	275.00	9731.24	10.07	22.01	11.29	0.61
4	9827.00	0.42	258.96	9826.24	10.05	21.16	11.22	0.26
5	9922.00	0.50	258.63	9921.24	9.90	20.41	11.03	0.08
6	10018.00	0.46	338.63	10017.23	10.17	19.86	11.28	0.64
7	10113.00	0.43	344.76	10112.23	10.87	19.63	11.96	0.06
8	10209.00	0.44	264.93	10208.23	11.19	19.16	12.25	0.58
9	10304.00	1.50	29.62	10303.22	12.24	19.42	13.31	1.88
10	10336.00	6.28	30.60	10335.14	14.11	20.51	15.24	14.94
11	10368.00	11.00	29.67	10366.76	18.27	22.92	19.53	14.76
12	10400.00	15.26	27.71	10397.92	24.65	26.39	26.10	13.38
13	10431.00	18.31	29.28	10427.60	32.51	30.67	34.19	9.95
14	10463.00	20.78	31.12	10457.75	41.76	36.06	43.72	7.95
15	10495.00	24.01	30.33	10487.33	52.24	42.28	54.54	10.14
16	10527.00	27.80	29.14	10516.11	64.38	49.21	67.05	11.95
17	10558.00	31.07	28.16	10543.11	77.75	56.51	80.81	10.66
18	10590.00	34.06	28.11	10570.07	92.94	64.63	96.43	9.34
19	10622.00	37.39	27.37	10596.05	109.48	73.32	113.43	10.49
20	10654.00	40.58	27.46	10620.92	127.35	82.59	131.80	9.97
21	10685.00	43.50	27.74	10643.94	145.74	92.20	150.70	9.44
22	10717.00	46.91	28.29	10666.48	165.78	102.87	171.32	10.73
23	10749.00	49.19	28.22	10687.87	186.74	114.14	192.88	7.13
24	10781.00	53.32	28.84	10707.89	208.67	126.06	215.44	12.99
25	10813.00	57.22	29.52	10726.12	231.62	138.88	239.08	12.31
26	10845.00	61.13	29.32	10742.52	255.55	152.38	263.73	12.23
27	10877.00	64.75	30.20	10757.07	280.28	166.52	289.22	11.57
28	10908.00	68.38	30.56	10769.40	304.82	180.90	314.53	11.76
29	10940.00	72.51	29.62	10780.11	330.90	196.02	341.42	13.20
30	10972.00	75.72	28.63	10788.87	357.79	210.99	369.11	10.46
31	11004.00	78.35	28.13	10796.04	385.22	225.81	397.33	8.36
32	11036.00	80.78	27.04	10801.84	413.11	240.38	426.00	8.30
33	11067.00	83.56	26.84	10806.06	440.49	254.30	454.12	8.99
34	11099.00	86.98	26.21	10808.70	469.02	268.53	483.40	10.87
35	11131.00	90.37	26.64	10809.44	497.66	282.77	512.80	10.68
36	11163.00	91.66	27.48	10808.87	526.15	297.32	542.07	4.81
37	11226.00	90.00	26.13	10807.96	582.38	325.73	599.80	3.40
38	11258.00	89.42	25.43	10808.12	611.19	339.65	629.36	2.84
39	11290.00	89.26	24.92	10808.49	640.15	353.26	659.04	1.67

SUNBURST CONSULTING, INC.

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Operator:	Slawson Exploration Company, Inc.		
Well :	Magnum 1-36-25H		
County:	McKenzie	State:	ND
QQ:	SW SW	Section:	36
Township:	153	N/S:	N
Range:	101	E/W:	W
Footages:	250	FN/SL:	S
	815	FE/WL:	W

Kick-off	2/15/2012
Finish:	3/6/2012
Directional Supervision:	
Sperry	

Date: 3/14/2012
 Time: 9:21
F9 to re-calculate

Proposed dir: 3.23

Minimum Curvature Method (SPE-3362)

[North and East are positive and South and West are negative, relative to surface location]

No.	MD	INC	TRUE			N-S	E-W	SECT	DLS/ 100
			AZM	TVD					
40	11354.00	89.45	24.41	10809.21	698.31	379.96	718.60	0.85	
41	11449.00	90.00	23.58	10809.67	785.09	418.60	807.43	1.05	
42	11494.00	90.89	23.43	10809.32	826.36	436.54	849.64	2.01	
43	11529.00	91.54	22.55	10808.58	858.57	450.21	882.57	3.13	
44	11584.00	92.37	24.32	10806.70	909.00	472.07	934.16	3.55	
45	11678.00	89.85	19.71	10804.88	996.10	507.28	1023.10	5.59	
46	11773.00	89.51	17.15	10805.41	1086.22	537.32	1114.77	2.72	
47	11868.00	88.34	12.58	10807.19	1178.00	561.68	1207.77	4.96	
48	11963.00	89.14	8.67	10809.28	1271.33	579.18	1301.94	4.20	
49	12057.00	89.91	5.64	10810.06	1364.58	590.89	1395.71	3.33	
50	12152.00	90.03	1.94	10810.11	1459.36	597.17	1490.69	3.90	
51	12183.00	90.43	0.74	10809.99	1490.35	597.89	1521.67	4.08	
52	12246.00	89.66	0.31	10809.94	1553.34	598.47	1584.60	1.40	
53	12309.00	89.69	359.95	10810.29	1616.34	598.61	1647.50	0.57	
54	12340.00	89.85	359.85	10810.42	1647.34	598.56	1678.45	0.61	
55	12402.00	90.12	359.97	10810.44	1709.34	598.46	1740.35	0.48	
56	12434.00	90.06	359.62	10810.38	1741.34	598.35	1772.29	1.11	
57	12527.00	90.09	358.93	10810.26	1834.33	597.17	1865.07	0.74	
58	12590.00	90.43	359.11	10809.98	1897.32	596.09	1927.90	0.61	
59	12621.00	90.71	359.27	10809.67	1928.32	595.66	1958.82	1.04	
60	12715.00	90.09	0.61	10809.01	2022.31	595.56	2052.66	1.57	
61	12778.00	90.68	0.35	10808.59	2085.31	596.09	2115.58	1.02	
62	12809.00	90.89	0.47	10808.16	2116.31	596.31	2146.54	0.78	
63	12905.00	89.17	0.18	10808.11	2212.30	596.85	2242.42	1.82	
64	12999.00	89.38	0.54	10809.30	2306.29	597.44	2336.29	0.44	
65	13095.00	90.34	0.27	10809.54	2402.29	598.12	2432.17	1.04	
66	13190.00	89.54	0.91	10809.64	2497.28	599.10	2527.07	1.08	
67	13253.00	90.15	1.02	10809.81	2560.27	600.16	2590.02	0.98	
68	13285.00	90.71	1.03	10809.57	2592.27	600.73	2622.00	1.75	
69	13316.00	89.32	1.20	10809.56	2623.26	601.34	2652.97	4.52	
70	13380.00	89.51	0.95	10810.21	2687.24	602.54	2716.93	0.49	
71	13475.00	89.23	0.89	10811.26	2782.23	604.06	2811.84	0.30	
72	13538.00	88.58	0.08	10812.46	2845.21	604.59	2874.76	1.65	
73	13569.00	88.64	0.94	10813.21	2876.20	604.87	2905.71	2.78	
74	13663.00	89.97	0.50	10814.35	2970.18	606.05	2999.61	1.49	
75	13726.00	89.48	359.72	10814.66	3033.18	606.17	3062.52	1.46	
76	13757.00	89.48	359.45	10814.94	3064.18	605.95	3093.45	0.87	
77	13852.00	89.51	359.44	10815.78	3159.17	605.03	3188.24	0.03	
78	13946.00	91.57	359.85	10814.89	3253.16	604.45	3282.05	2.23	
79	14009.00	92.19	359.36	10812.82	3316.13	604.01	3344.89	1.25	

SUNBURST CONSULTING, INC.

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Operator:	Slawson Exploration Company, Inc.	
Well :	Magnum 1-36-25H	
County:	McKenzie	State: ND
QQ:	SW SW	Section: 36
Township:	153	N/S: N
Range:	101	E/W: W
Footages:	250	FN/SL: S
	815	FE/WL: W

Kick-off	2/15/2012
Finish:	3/6/2012
Directional Supervision:	
	Sperry

Date: 3/14/2012
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Minimum Curvature Method (SPE-3362)

[North and East are positive and South and West are negative, relative to surface location]

No.	MD	INC	TRUE		N-S	E-W	SECT	DLS/ 100
			AZM	TVD				
80	14041.00	92.06	359.17	10811.64	3348.10	603.60	3376.79	0.72
81	14104.00	91.48	359.27	10809.69	3411.06	602.74	3439.61	0.93
82	14136.00	91.48	359.50	10808.86	3443.05	602.40	3471.52	0.72
83	14167.00	90.95	0.41	10808.21	3474.04	602.38	3502.47	3.40
84	14230.00	89.97	0.69	10807.70	3537.04	602.98	3565.39	1.62
85	14294.00	89.35	0.28	10808.08	3601.04	603.52	3629.32	1.16
86	14325.00	89.35	0.08	10808.43	3632.03	603.62	3660.27	0.65
87	14389.00	90.03	0.46	10808.78	3696.03	603.92	3724.19	1.22
88	14421.00	90.68	0.18	10808.58	3728.03	604.10	3756.14	2.21
89	14515.00	89.57	359.52	10808.37	3822.03	603.85	3849.98	1.37
90	14610.00	89.78	359.55	10808.91	3917.02	603.08	3944.78	0.22
91	14705.00	89.82	358.94	10809.25	4012.01	601.83	4039.55	0.64
92	14801.00	90.37	358.81	10809.09	4107.99	599.95	4135.27	0.59
93	14896.00	89.54	359.14	10809.16	4202.98	598.25	4230.01	0.94
94	14991.00	89.51	358.42	10809.95	4297.95	596.22	4324.72	0.76
95	15085.00	89.45	358.37	10810.80	4391.91	593.59	4418.38	0.08
96	15179.00	89.66	357.88	10811.53	4485.86	590.52	4512.00	0.57
97	15211.00	90.09	358.03	10811.60	4517.84	589.37	4543.87	1.42
98	15274.00	90.40	359.11	10811.33	4580.82	587.80	4606.66	1.78
99	15305.00	90.25	359.41	10811.16	4611.81	587.40	4637.58	1.08
100	15369.00	90.62	359.98	10810.67	4675.81	587.06	4701.46	1.06
101	15464.00	90.22	359.37	10809.97	4770.81	586.52	4796.27	0.77
102	15559.00	90.62	359.63	10809.28	4865.80	585.69	4891.07	0.50
103	15653.00	91.33	359.30	10807.68	4959.78	584.82	4984.85	0.83
104	15716.00	91.70	358.86	10806.01	5022.75	583.80	5047.67	0.91
105	15748.00	90.34	359.40	10805.44	5054.74	583.32	5079.58	4.57
106	15843.00	89.29	359.97	10805.75	5149.74	582.80	5174.39	1.26
107	15938.00	90.31	359.62	10806.08	5244.73	582.46	5269.22	1.14
108	16033.00	90.55	359.94	10805.37	5339.73	582.09	5364.05	0.42
109	16096.00	90.89	359.14	10804.58	5402.72	581.59	5426.91	1.38
110	16128.00	91.05	359.10	10804.03	5434.71	581.09	5458.82	0.52
111	16223.00	90.86	358.96	10802.45	5529.69	579.49	5553.55	0.25
112	16317.00	90.06	358.55	10801.70	5623.66	577.44	5647.26	0.96
113	16376.00	90.43	358.38	10801.44	5682.64	575.86	5706.06	0.69
114	16439.00	91.02	358.90	10800.65	5745.62	574.37	5768.85	1.25
115	16471.00	91.05	358.86	10800.07	5777.61	573.74	5800.75	0.16
116	16566.00	90.06	359.85	10799.15	5872.59	572.67	5895.53	1.47
117	16630.00	90.34	359.63	10798.93	5936.59	572.38	5959.41	0.56
118	16662.00	90.31	360.00	10798.74	5968.59	572.28	5991.35	1.16
119	16757.00	91.08	359.27	10797.59	6063.58	571.68	6086.16	1.12

SUNBURST CONSULTING, INC.

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Operator:

Slawson Exploration Company, Inc.		
Magnum 1-36-25H		
County:	McKenzie	State: ND
QQ:	SW SW	Section: 36
Township:	153	N/S: N
Range:	101	E/W: W
Footages:	250	FN/SL: S
	815	FE/WL: W

Well :

Kick-off	2/15/2012
Finish:	3/6/2012
Directional Supervision:	
Sperry	

County:

QQ:

Township:

Range:

Footages:

Date: 3/14/2012
 Time: 9:21
F9 to re-calculate

Proposed dir:

3.23

Minimum Curvature Method (SPE-3362)

[North and East are positive and South and West are negative, relative to surface location]

No.	MD	INC	TRUE			E-W	SECT	DLS/ 100
			AZM	TVD	N-S			
120	16852.00	89.66	359.23	10796.98	6158.57	570.43	6180.92	1.50
121	16946.00	89.97	359.04	10797.28	6252.56	569.01	6274.68	0.39
122	17040.00	90.31	358.57	10797.05	6346.54	567.05	6368.40	0.62
123	17135.00	89.51	359.11	10797.20	6441.51	565.13	6463.12	1.02
124	17230.00	89.72	358.18	10797.84	6536.48	562.88	6557.82	1.00
125	17325.00	89.69	357.88	10798.33	6631.43	559.62	6652.42	0.32
126	17356.00	89.54	358.09	10798.54	6662.41	558.53	6683.29	0.83
127	17420.00	90.25	357.64	10798.65	6726.36	556.14	6747.01	1.31
128	17514.00	89.26	358.88	10799.06	6820.31	553.29	6840.65	1.69
129	17546.00	89.48	358.56	10799.41	6852.30	552.57	6872.55	1.21
130	17609.00	90.03	359.34	10799.68	6915.29	551.42	6935.38	1.51
131	17704.00	89.63	358.36	10799.96	7010.27	549.51	7030.10	1.11
132	17799.00	90.49	359.75	10799.86	7105.26	547.95	7124.84	1.72
133	17894.00	90.71	359.82	10798.87	7200.25	547.59	7219.67	0.24
134	17989.00	89.91	358.75	10798.35	7295.24	546.40	7314.44	1.41
135	18084.00	90.00	359.60	10798.43	7390.23	545.04	7409.20	0.90
136	18178.00	90.65	359.45	10797.89	7484.22	544.26	7503.00	0.71
137	18273.00	90.09	0.54	10797.28	7579.22	544.25	7597.84	1.29
138	18368.00	89.85	0.32	10797.33	7674.22	544.96	7692.73	0.34
139	18431.00	89.51	359.71	10797.68	7737.22	544.98	7755.63	1.11
140	18463.00	89.17	359.11	10798.05	7769.21	544.65	7787.56	2.16
141	18558.00	89.35	0.84	10799.28	7864.20	544.61	7882.39	1.83
142	18652.00	89.94	0.81	10799.86	7958.19	545.96	7976.31	0.63
143	18745.00	90.18	0.59	10799.76	8051.18	547.10	8069.22	0.35
144	18838.00	90.12	0.29	10799.52	8144.18	547.81	8162.11	0.33
145	18932.00	90.55	1.39	10798.97	8238.16	549.19	8256.02	1.26
146	19025.00	90.99	1.06	10797.72	8331.13	551.18	8348.95	0.59
147	19088.00	90.86	1.06	10796.70	8394.11	552.34	8411.90	0.21
148	19119.00	90.86	0.63	10796.24	8425.11	552.80	8442.87	1.39
149	19181.00	91.02	0.88	10795.22	8487.09	553.62	8504.80	0.48
150	19212.00	90.89	0.47	10794.70	8518.09	553.98	8535.77	1.39
151	19274.00	90.43	359.87	10793.99	8580.08	554.17	8597.68	1.22
152	19305.00	90.34	359.39	10793.78	8611.08	553.97	8628.61	1.58
153	19398.00	91.14	359.08	10792.58	8704.06	552.72	8721.38	0.92
154	19491.00	90.00	359.25	10791.65	8797.05	551.37	8814.14	1.24
155	19584.00	90.55	359.28	10791.21	8890.04	550.18	8906.92	0.59
156	19677.00	91.48	359.40	10789.56	8983.02	549.10	8999.69	1.01
157	19770.00	89.20	359.47	10789.01	9076.01	548.19	9092.47	2.45
158	19801.00	90.43	0.32	10789.11	9107.00	548.13	9123.42	4.82
159	19863.00	90.62	359.79	10788.54	9169.00	548.19	9185.32	0.91

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SUNBURST CONSULTING, INC.

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Operator:	Slawson Exploration Company, Inc.	
Well :	Magnum 1-36-25H	
County:	McKenzie	State: ND
QQ:	SW SW	Section: 36
Township:	153	N/S: N
Range:	101	E/W: W
Footages:	250	FN/SL: S
	815	FE/WL: W

Kick-off	2/15/2012
Finish:	3/6/2012
Directional Supervision:	
Sperry	

Date: 3/14/2012
 Time: 9:21
F9 to re-calculate

Proposed dir: 3.23

Minimum Curvature Method (SPE-3362)

[North and East are positive and South and West are negative, relative to surface location]

No.	MD	INC	TRUE			N-S	E-W	SECT	DLS/ 100
			AZM	TVD					
160	19894.00	90.59	0.15	10788.21	9200.00	548.17	9216.27	1.17	
161	19925.00	89.72	359.92	10788.13	9231.00	548.19	9247.22	2.90	
162	19957.00	87.53	359.58	10788.90	9262.99	548.05	9279.15	6.93	
163	19987.00	87.66	359.77	10790.16	9292.96	547.88	9309.07	0.77	
164	20050.00	88.77	359.88	10792.12	9355.93	547.69	9371.93	1.77	
165	20081.00	88.61	359.79	10792.83	9386.92	547.60	9402.86	0.59	
166	20144.00	89.88	359.09	10793.66	9449.91	546.99	9465.72	2.30	
167	20237.00	90.22	358.67	10793.58	9542.89	545.17	9558.45	0.58	
168	20330.00	90.22	358.44	10793.22	9635.86	542.82	9651.14	0.25	
169	20426.00	89.14	357.61	10793.75	9731.80	539.52	9746.74	1.42	
170	20520.00	89.72	357.79	10794.69	9825.72	535.74	9840.30	0.65	
171	20614.00	90.03	356.85	10794.89	9919.62	531.35	9933.80	1.05	
172	20682.00	90.15	356.44	10794.79	9987.50	527.37	10001.35	0.63	
PTB	20730.00	90.15	356.44	10794.66	10035.41	524.39	10049.01	0.00	

DEVIATION SURVEYS

Depth	Inclination	Azimuth
0	0.00	0.00
2182	0.00	0.00
2225	1.14	298.45
2259	1.14	293.44
2354	1.49	303.28
2450	1.49	307.60
2542	1.49	307.50
2637	1.67	318.57
2732	1.93	316.29
2828	2.02	322.26
2924	1.23	328.59
3022	1.14	321.56
3117	0.88	313.47
3213	0.97	68.88
3308	0.97	43.21
3403	0.97	62.11
3498	0.79	67.73
3594	0.62	84.78
3689	0.70	73.45
3785	0.79	85.75
3880	0.79	98.93
3976	0.79	103.77
4071	0.53	132.33
4168	0.62	118.53
4261	0.44	147.01
4357	0.70	150.79
4452	0.70	150.96
4548	0.26	197.47
4643	0.26	158.07
4738	0.09	213.48
4834	0.44	213.81
4929	0.70	188.23
5022	0.97	185.68
5117	0.97	193.77
5213	0.97	170.48
5308	0.88	85.84
5403	0.70	95.15
5499	1.23	82.15
5595	1.14	79.51
5690	0.88	76.17
5785	1.23	57.71
5881	1.49	34.95
5976	1.49	57.36
6072	1.32	75.20
6167	0.70	89.71

Depth	Inclination	Azimuth
6266	0.62	79.25
6361	0.70	84.70
6457	0.44	81.27
6552	0.09	305.74
6647	0.18	326.48
6743	0.18	82.94
6838	0.18	93.04
6934	0.44	28.84
7029	0.44	50.95
7124	0.53	111.33
7220	0.62	106.76
7315	0.79	117.13
7407	0.88	130.75
7502	0.97	147.27
7598	0.79	158.61
7694	0.53	162.13
7789	0.26	137.34
7884	0.62	165.91
7979	0.44	246.59
8078	0.25	218.46
8173	0.18	242.63
8268	0.18	50.15
8364	0.26	145.16
8456	0.26	272.08
8555	0.26	359.97
8651	0.44	68.87
8746	0.18	109.57
8839	0.44	48.40
8934	0.18	127.50
9029	0.18	82.94
9124	0.18	305.21
9220	0.26	8.49
9315	0.18	254.24
9410	0.09	56.04
9506	0.44	263.55

FORMATION TOPS & STRUCTURAL RELATIONSHIPS

Operator: Well Name: Location: Elevation:	Subject Well:										Offset Wells:		
	Slawson Exploration Company, Inc Magnum 1-36-25H 250' FSL & 815' FWL SW SW Section 36, T153N, R101W												
Formation/ Zone	Prog. Top	Prog. Datum (MSL)	Driller's Depth Top (MD)	Driller's Depth Top (TVD)	E-Log Top (TVD)	Datum (MSL)	Interval Thickness	Thickness to Target	Dip To Prog.	Dip To Lindvig 1-35	Dip To Fossum 15-35H	Dip To Verlin Fossum et al. 26-1	
Tyler	-	-	7,887'	7,886'	-	-5,677'	556'	2,923'	-	-11'	-	-	
Kibbey Lime	8,330'	-6,121'	8,443'	8,442'	-	-6,233'	174'	2,367'	-112'	-9'	-	-35'	
Charles	8,477'	-6,268'	8,617'	8,616'	-	-6,407'	650'	2,193'	-139'	-35'	-	-72'	
Base Last Salt	9,285'	-7,076'	9,267'	9,266'	-	-7,057'	216'	1,543'	19'	-3'	-6'	-24'	
Mission Canyon	9,477'	-7,268'	9,483'	9,482'	-	-7,273'	542'	1,327'	-5'	1'	-7'	-25'	
Lodgepole	10,047'	-7,838'	10,024'	10,024'	-	-7,815'	168'	785'	23'	0'	21'	2'	
LP 1	-	-	10,193'	10,192'	-	-7,983'	297'	617'	-	-5'	-	-	
LP 2	-	-	10,495'	10,489'	-	-8,280'	278'	320'	-	-2'	-	-	
LP 3	-	-	-	-	-	-	-	-	-	-	-	-	
False Bakken	-	-	10,901'	10,767'	-	-8,558'	8'	42'	-	-11'	-18'	-34'	
Upper Bakken Shale	10,767'	-8,558'	10,922'	10,775'	-	-8,566'	16'	34'	-8'	-8'	-10'	-33'	
Middle Bakken	-	-	10,975'	10,791'	-	-8,582'	18'	18'	-	-8'	-11'	-33'	
M. Bakken (Target)	10,789'	-8,580'	11,076'	10,809'	-	-8,600'	-	0'	-20'	-6'	-9'	-31'	

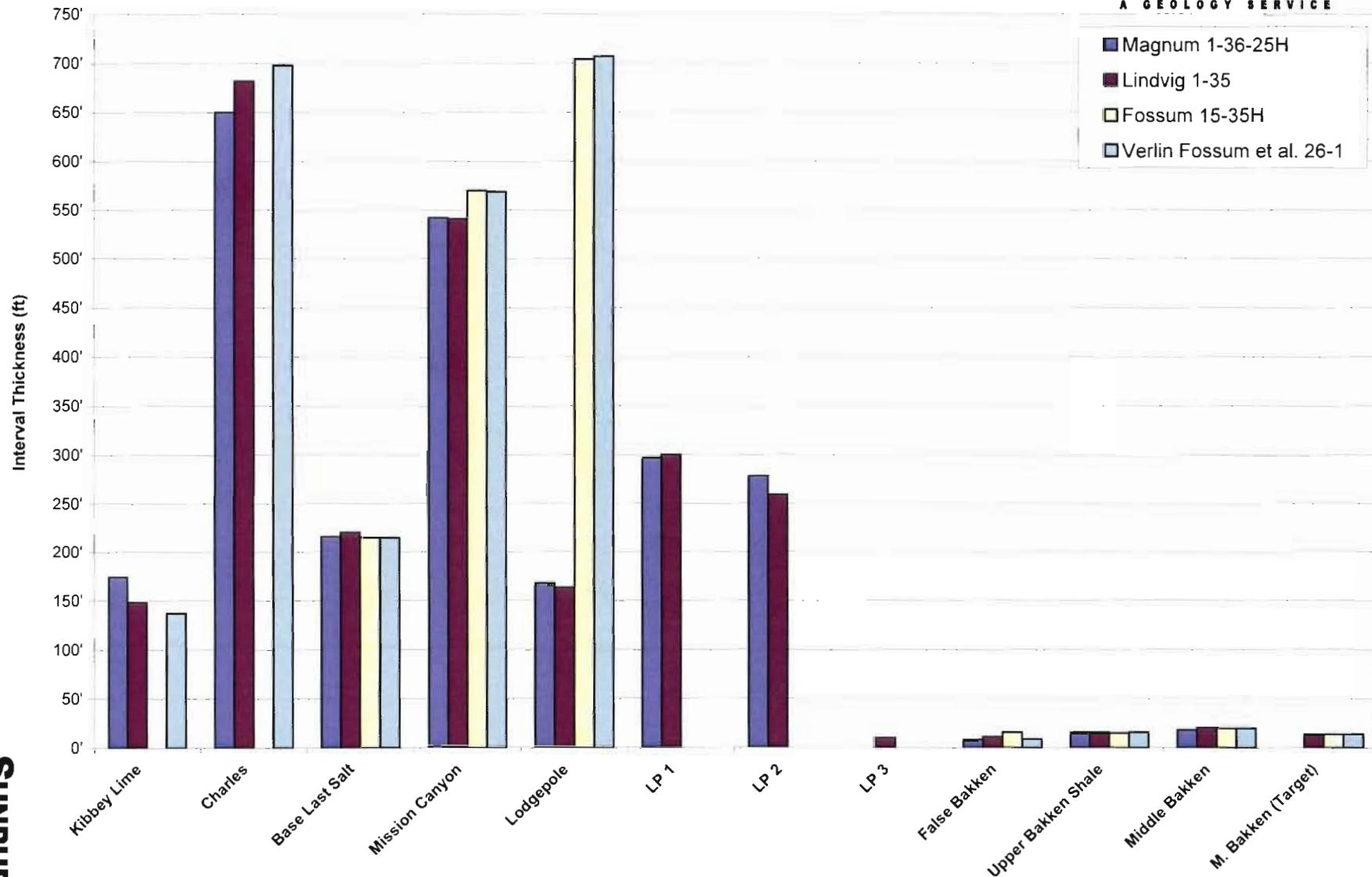
CONTROL DATA

Operator: Well Name: Location: Elevation:	Texas Gas Exploration Corp. Lindvig 1-35 SE SE Sec. 35, T153N, R101W McKenzie County, ND 0.3 mi. W of Magnum 1-36-25H				SM Energy Company Fossum 15-35H SW SE Section 35, T153N, R101W McKenzie County, ND 0.5 mi. W of Magnum 1-36-25H				Harper Oil Co. Verlin Fossum et al. 26-1 NW SE Sec. 26, T153N, R101W McKenzie County, ND 1.5 mi. NW of Magnum 1-36-25H			
	KB: 2,226'				KB: 2,221'				KB: 2,175'			
Formation/ Zone	E-Log Top	Datum (MSL)	Interval Thickness	Thickness to Target	E-Log Top	Datum (MSL)	Interval Thickness	Thickness to Target	E-Log Top	Datum (MSL)	Interval Thickness	Thickness to Target
Tyler	7,892'	-5,666'	558'	2,928'	-	-	-	-	-	-	-	-
Kibbey Lime	8,450'	-6,224'	148'	2,370'	-	-	-	-	8,373'	-6,198'	137'	2,371'
Charles	8,598'	-6,372'	682'	2,222'	-	-	-	-	8,510'	-6,335'	698'	2,234'
Base Last Salt	9,280'	-7,054'	220'	1,540'	9,272'	-7,051'	215'	1,540'	9,208'	-7,033'	215'	1,536'
Mission Canyon	9,500'	-7,274'	541'	1,320'	9,487'	-7,266'	570'	1,325'	9,423'	-7,248'	569'	1,321'
Lodgepole	10,041'	-7,815'	163'	779'	10,057'	-7,836'	704'	755'	9,992'	-7,817'	707'	752'
LP 1	10,204'	-7,978'	300'	616'	-	-	-	-	-	-	-	-
LP 2	10,504'	-8,278'	259'	316'	-	-	-	-	-	-	-	-
LP 3	10,763'	-8,537'	10'	57'	-	-	-	-	-	-	-	-
False Bakken	10,773'	-8,547'	11'	47'	10,761'	-8,540'	16'	51'	10,699'	-8,524'	9'	45'
Upper Bakken Shale	10,784'	-8,558'	16'	36'	10,777'	-8,556'	15'	35'	10,708'	-8,533'	16'	36'
Middle Bakken	10,800'	-8,574'	20'	20'	10,792'	-8,571'	20'	20'	10,724'	-8,549'	20'	20'
M. Bakken (Target)	10,820'	-8,594'	14'	0'	10,812'	-8,591'	14'	0'	10,744'	-8,569'	14'	0'
Lower Bakken Shale	10,834'	-8,608'	-	-	10,826'	-8,605'	-	-14'	10,758'	-8,583'	-	-14'



INTERVAL THICKNESS

Slawson Exploration Company, Inc - Magnum 1-36-25H

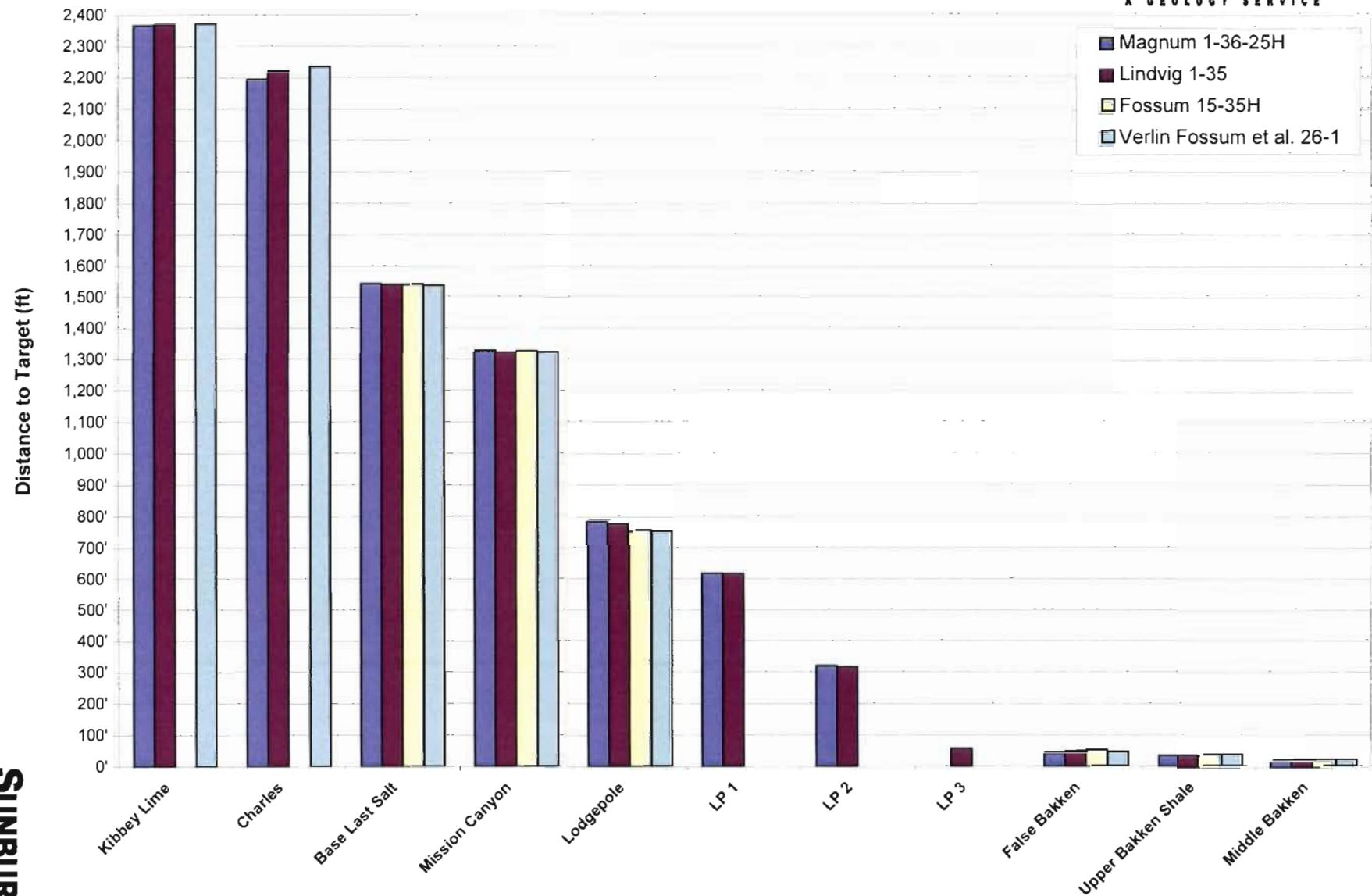


TARGET PROXIMATION

Formation/ Zone:	Proposed Top of Target From:			
	Lindvig 1-35	Fossum 15-35H	Verlin Fossum et al. 26-1	Average of Offset Wells
Kibbey Lime	10,812'	10,813'	10,813'	10,813'
Charles	10,838'	10,850'	10,850'	10,846'
Base Last Salt	10,806'	10,802'	10,802'	10,803'
Mission Canyon	10,802'	10,803'	10,803'	10,803'
Lodgepole	10,803'	10,776'	10,776'	10,785'
LP 1	10,808'	-	-	10,808'
LP 2	10,805'	-	-	10,805'
LP 3	-	-	-	-
False Bakken	10,814'	10,812'	10,812'	10,813'
Upper Bakken Shale	10,811'	10,811'	10,811'	10,811'
Middle Bakken	10,811'	10,811'	10,811'	10,811'
M. Bakken (Target)	10,809'	10,809'	10,809'	10,809'
Lower Bakken Shale	-	-	-	-

ISOPACH TO TARGET

Slawson Exploration Company, Inc - Magnum 1-36-25H



LITHOLOGY

Rig crews caught samples in 30' intervals from 7,670' – 11,510' and 50' samples from 11,500' – 20,730' (TD). Gamma ray marker tops have been inserted into the sample descriptions below for reference. Samples were examined wet and dry under a binocular microscope. Sample descriptions begin just above the Tyler. The drilling fluid was diesel invert mud from surface casing exit to 20,730' (TD).

VERTICAL OPERATIONS

7670-7700 SILTSTONE: red orange, friable, subblocky to subplatey, calcareous cement, poorly cemented, no visible porosity

7700-7730 SHALE: orange to trace reddish orange, subblocky to subplatey, no visible porosity SILTSTONE: red orange, friable, subblocky to subplatey, calcareous cement, poorly cemented, no visible porosity

7730-7760 SHALE: orange to trace reddish orange, subblocky to subplatey, no visible porosity SILTSTONE: red orange, friable, subblocky to subplatey, calcareous cement, poorly cemented, no visible porosity

7760-7790 SILTSTONE: orange, trace dark red, friable, subblocky to subplatey, calcareous cement, poorly cemented, no visible porosity; trace ANHYDRITE: off white, cryptocrystalline, soft, massive, amorphous texture, no visible porosity

7790-7820 SILTSTONE: orange, trace dark red, friable, subblocky to subplatey, calcareous cement, poorly cemented ; DOLOMITE: mudstone, light gray to pink gray, cream to light yellow, microcrystalline to very fine crystalline, very trace SANDSTONE: light red, gray, firm, calcareous cement, poorly cemented, no visible porosity

7820-7850 SILTSTONE: orange, trace dark red, friable, subblocky to subplatey, calcareous cement, poorly cemented DOLOMITE: mudstone, light gray to pink gray, cream to light yellow, microcrystalline to very fine crystalline, SHALE: orange to trace reddish orange, subblocky to subplatey, no visible porosity trace LIMESTONE

7850-7886 SILTSTONE: orange, trace dark red, friable, subblocky to subplatey, calcareous cement, poorly cemented DOLOMITE: mudstone, light gray to pink gray, cream to light yellow, microcrystalline to very fine crystalline, SHALE: orange to trace reddish orange, subblocky to subplatey, no visible porosity

Tyler /Penn., Minnelusa Gp] 7,886' (-5,667')

7886-7910 SILTSTONE: orange, trace dark red, friable, subblocky to subplatey, calcareous cement, poorly cemented SHALE: orange to trace reddish orange, subblocky to subplatey, no visible porosity

7910-7940 SILTSTONE: reddish orange to rare light pink, friable, subblocky to subplatey, calcareous cement, poorly cemented, shale grained in part, no visible porosity SHALE: orange to trace reddish orange, subblocky to subplatey, no visible porosity very trace SANDSTONE: light red, gray, firm, calcareous cement, poorly cemented, no visible porosity

7940-7970 SHALE: blackish shale brown, friable, subblocky to subplatey, earthy texture, trace SHALE: orange to trace reddish orange, subblocky to subplatey, no visible porosity; SILTSTONE: reddish orange to rare light pink, friable, subblocky to subplatey, calcareous cement, poorly cemented

7970-8000 SHALE: blackish shale brown, friable, subblocky to subplatey, earthy texture, trace SHALE: orange to trace reddish orange, subblocky to subplatey, no visible porosity; very trace, SANDSTONE: gray, trace reddish gray, gray brown, friable to firm, fine grained, subrounded, trace rounded calcareous cement, poorly cemented; LIMESTONE: mudstone, gray to gray black, microcrystalline,

8000-8030 SHALE: blackish shale brown, friable, subblocky to subplatey, earthy texture, trace SHALE: orange to trace reddish orange, subblocky to subplatey, no visible porosity , very trace, SANDSTONE: gray, trace reddish gray, gray brown, friable to firm, fine grained, subrounded, trace rounded calcareous cement, poorly cemented; LIMESTONE: mudstone, gray to gray black, microcrystalline, no visible porosity , trace light black oil stain

8030-8060 SHALE: blackish shale brown, friable, subblocky to subplatey, earthy texture, trace SHALE: orange to trace reddish orange, subblocky to subplatey, no visible porosity , very trace, SANDSTONE: gray, trace reddish gray, gray brown, friable to firm, fine grained, subrounded, trace rounded calcareous cement, poorly cemented; LIMESTONE: mudstone, gray to gray black, microcrystalline, no visible porosity , trace light black oil stain

8060-8090 LIMESTONE: mudstone, cream, microcrystalline, friable, dense, earthy texture, no visible porosity ; common SHALE: blackish gray, firm to friable to trace friable, subblocky to subrounded, earthy texture, no visible porosity ; trace ANHYDRITE: off white, cryptocrystalline, soft, amorphous texture, no visible porosity

8090-8120 SHALE: medium gray, friable, subblocky to subplatey, waxy to trace earthy texture, no visible porosity; occasional SILTSTONE: greenish blue, firm, subblocky to subplatey, calcareous cement, well cemented, no visible porosity; trace ANHYDRITE: off white, cryptocrystalline, soft, amorphous texture, no visible porosity

8120-8150 LIMESTONE: mudstone, cream light green to rare cream, microcrystalline, firm, dense, earthy texture, no visible porosity ; occasional SHALE: blackish gray to trace black, firm, subblocky to subrounded, earthy texture, no visible porosity

8150-8180 SHALE: grey black, friable to firm, subblocky to subplatey, earthy texture, no visible porosity ; rare ANHYDRITE: off white, cryptocrystalline, soft, amorphous texture, possible intergranular porosity, trace dark brown dead spotty oil stain; trace SILTSTONE: medium gray, friable, subblocky to subplatey, calcareous cement, moderately cemented, no visible porosity

8180-8210 SHALE: grey black, friable to firm, subblocky to subplatey, earthy texture, no visible porosity; trace SILTSTONE: medium gray, friable, subblocky to subplatey, calcareous cement, moderately cemented, no visible porosity; trace ANHYDRITE: off white, cryptocrystalline, soft, amorphous texture, no visible porosity

8210-8240 LIMESTONE: mudstone, cream to trace light gray, microcrystalline, firm to trace hard, dense, earthy to trace crystalline texture, trace siliceous, argillaceous in part, no visible porosity

8240-8270 SILTSTONE: red orange, friable, subblocky to subplatey, calcareous cement, moderately cemented, no visible porosity; rare ANHYDRITE: off white, cryptocrystalline, soft, amorphous texture, no visible porosity; trace SHALE: black, firm, subblocky to subplatey, earthy texture, no visible porosity

8270-8300 SILTSTONE: pink, friable, subblocky to subplatey, calcareous cement, moderately cemented, trace anhydrite, no visible porosity

8300-8330 SILTSTONE: cream light pink to trace red orange, friable to trace soft, subblocky to subplatey, calcareous cement, moderately to trace poorly cemented, anhydrite in part, no visible porosity

8330-8360 SILTSTONE: red orange, friable, subblocky to subplatey, calcareous cement, moderately cemented, no visible porosity; occasional ANHYDRITE: off white, cryptocrystalline, soft, amorphous texture, silty grained in part, no visible porosity

8360-8390 SILTSTONE: orange pink, friable, subblocky to subplatey, calcareous cement, moderately cemented, trace sandy grained, no visible porosity

8390-8420 SILTSTONE: orange, friable, subblocky to subplatey, calcareous cement, moderately cemented, no visible porosity

8420-8442 ANHYDRITE: off white, cryptocrystalline, soft, amorphous texture, silty grained in part, no visible porosity, LIMESTONE: light gray to gray, mudstone to wackestone, microcrystalline, firm, earthy texture, no visible porosity

Kibbey "Lime" /Miss. Big Snowy Gp]

8,442' (-6,223')

8442-8480 ANHYDRITE: off white, cryptocrystalline, soft, amorphous texture, silty grained in part, no visible porosity; LIMESTONE: light gray to gray, mudstone to wackestone, microcrystalline, firm, earthy texture, no visible porosity

8480-8510 SILTSTONE: red orange, firm, subblocky to subplatey, calcareous cement, well cemented, no visible porosity; rare SALT: translucent, crystalline, hard, anhedral to trace subhedral, crystalline texture, no visible porosity; trace ANHYDRITE: off white, cryptocrystalline, soft, amorphous texture, no visible porosity

8510-8540 SILTSTONE: red orange, firm, subblocky to subplatey, calcareous cement, well cemented, no visible porosity; trace ANHYDRITE: off white, cryptocrystalline, soft, amorphous texture, no visible porosity

8540-8570 SILTSTONE: pink orange, firm to trace hard, subblocky to subplatey, calcareous cement, well to trace very well cemented, no visible porosity

8570-8600 SILTSTONE: pink orange, firm to trace hard, subblocky to subplatey, calcareous cement, well to trace very well cemented, no visible porosity

Charles /Miss. Madison Gp]

8,616' (-6,407')

8616-8630 SALT: frosted to rare clear to trace milky, crystalline, hard, anhedral, no visible porosity; trace SILTSTONE: pink orange, firm to trace soft, subblocky to subplatey, calcareous cement, well to poorly cemented, no visible porosity

8630-8660 SALT: frosted to trace clear, crystalline, hard, anhedral to trace subhedral, no visible porosity

8660-8690 SALT: frosted to trace translucent to trace milky, crystalline, hard, anhedral, no visible porosity; occasional SILTSTONE: pink orange, friable, subblocky to subplatey, calcareous cement, moderately cemented, no visible porosity

8690-8720 SALT: frosted to common translucent to trace milky, crystalline, hard, anhedral, no visible porosity; trace SILTSTONE: pink orange, firm, subblocky to subplatey, calcareous cement, well cemented, no visible porosity

8720-8750 SALT: frosted to trace clear to trace milky, crystalline, hard, anhedral, no visible porosity

8750-8780 ANHYDRITE: off white, cryptocrystalline, soft, amorphous texture, no visible porosity ; rare SALT: frosted to trace clear, crystalline, hard, anhedral, no visible porosity; trace LIMESTONE: mudstone, light gray, microcrystalline, firm, dense, earthy texture, no visible porosity; trace SILTSTONE: red orange, friable, subblocky to subplatey, calcareous cement, moderately cemented, no visible porosity

8780-8810 SALT: frosted to rare clear, crystalline, hard, anhedral, no visible porosity; trace ANHYDRITE: off white, cryptocrystalline, soft, amorphous texture, no visible porosity; trace SILTSTONE: pink orange, firm, subblocky to subplatey, calcareous cement, well cemented, no visible porosity

8810-8840 SALT: frosted to occasional clear, crystalline, hard, anhedral to trace subhedral, no visible porosity; rare ANHYDRITE: off white, cryptocrystalline, soft, amorphous texture, no visible porosity; LIMESTONE: mudstone, light gray, microcrystalline, firm, dense, earthy texture, no visible porosity

8840-8870 SALT: frosted to occasional clear, crystalline, hard, anhedral to trace subhedral, no visible porosity; rare ANHYDRITE: off white, cryptocrystalline, soft, amorphous texture, no visible porosity; LIMESTONE: mudstone, light gray, microcrystalline, firm, dense, earthy texture, no visible porosity

8870-8900 SALT: frosted to occasional clear, crystalline, hard, anhedral to trace subhedral, no visible porosity; rare ANHYDRITE: off white, cryptocrystalline, soft, amorphous texture, no visible porosity; LIMESTONE: mudstone, light gray, microcrystalline, firm, dense, earthy texture, no visible porosity

8900-8930 SALT: frosted to occasional clear, crystalline, hard, anhedral to trace subhedral, no visible porosity; rare ANHYDRITE: off white, cryptocrystalline, soft, amorphous texture, no visible porosity

8930-8960 SALT: frosted to occasional clear, crystalline, hard, anhedral to trace subhedral, no visible porosity; rare ANHYDRITE: off white, cryptocrystalline, soft, amorphous texture, no visible porosity

8960-8990 LIMESTONE: mudstone, gray, light gray, firm, microcrystalline to very fine crystalline, argillaceous in part, no visible porosity ANHYDRITE: cream to off white, soft, amorphous, ARGILLACEOUS LIMESTONE: mudstone, gray, light gray, occasional off white, firm, microcrystalline to very fine crystalline, no visible porosity

8990-9020 LIMESTONE: mudstone, gray, light gray, firm, microcrystalline to very fine crystalline, argillaceous in part, no visible porosity; ANHYDRITE: cream to off white, soft, amorphous, ARGILLACEOUS LIMESTONE: mudstone, gray, light gray, occasional off white, firm, microcrystalline to very fine crystalline, no visible porosity

9020-9050 ARGILLACEOUS LIMESTONE: mudstone, gray, light gray, occasional off white, firm, microcrystalline to very fine crystalline, no visible porosity; LIMESTONE: mudstone, gray, light gray, firm, microcrystalline to very fine crystalline, dolomitic in part, no visible porosity; ANHYDRITE: cream to off white, soft, amorphous,

9050-9080 SALT: frosted to occasional clear, crystalline, hard, anhedral to trace subhedral, no visible porosity; rare ANHYDRITE: off white, cryptocrystalline, soft, amorphous texture, no visible porosity

9080-9110 LIMESTONE: mudstone, gray, light gray, firm, microcrystalline to very fine crystalline, dolomitic in part, no visible porosity; ANHYDRITE: cream to off white, soft, amorphous; ARGILLACEOUS LIMESTONE: mudstone, gray, light gray, occasional off white, firm, microcrystalline to very fine crystalline, no visible porosity

9110-9140 LIMESTONE: mudstone, gray, light gray, firm, microcrystalline to very fine crystalline, dolomitic in part, no visible porosity ANHYDRITE: cream to off white, soft, amorphous; ARGILLACEOUS LIMESTONE: mudstone, gray, light gray, occasional off white, firm, microcrystalline to very fine crystalline, no visible porosity

9140-9170 LIMESTONE: mudstone, gray, light gray, firm, microcrystalline to very fine crystalline, dolomitic in part, no visible porosity; ANHYDRITE: cream to off white, soft, amorphous, ARGILLACEOUS LIMESTONE: mudstone, gray, light gray, occasional off white, firm, microcrystalline to very fine crystalline, no visible porosity

9170-9200 ANHYDRITE: cream to off white, soft, amorphous; ARGILLACEOUS LIMESTONE: mudstone, gray, light gray, occasional off white, firm, microcrystalline to very fine crystalline, no visible porosity, LIMESTONE: mudstone, gray, light gray, firm, microcrystalline to very fine crystalline, dolomitic in part, no visible porosity

9200-9230 ARGILLACEOUS LIMESTONE: mudstone, gray, light gray, occasional off white, firm, microcrystalline to very fine crystalline, no visible porosity; SALT: frosted to occasional clear, crystalline, hard, anhedral to trace subhedral, no visible porosity; rare ANHYDRITE: off white, cryptocrystalline, soft, amorphous texture, no visible porosity

9200-9266 SALT: frosted to occasional clear, crystalline, hard, anhedral to trace subhedral, no visible porosity; rare ANHYDRITE: off white, cryptocrystalline, soft, amorphous texture, no visible porosity; ARGILLACEOUS LIMESTONE: mudstone, gray, light gray, occasional off white, firm, microcrystalline to very fine crystalline, no visible porosity

Base of Charles Salt [Miss., Madison Gp]**9,266' (-7,057')**

9266-9290 DOLOMITE: mudstone, very light gray to gray, microcrystalline, friable, earthy to chalky texture, no visible porosity or oil stain; LIMESTONE: mudstone, light brown to light brown gray, microcrystalline, friable, earthy texture, argillaceous in part, no visible porosity , trace spotty light brown oil stain; ANHYDRITE: cream to milky white, microcrystalline, soft, chalky texture, no visible porosity or oil stain

9290-9320 LIMESTONE: mudstone, light brown to light brown gray, microcrystalline, friable to firm, earthy to slightly crystalline texture, no visible porosity or oil stain; very trace ANHYDRITE: cream to milky white, microcrystalline, soft, chalky texture, no visible porosity or oil stain; DOLOMITE: mudstone, very light gray to gray, microcrystalline, friable, earthy to chalky texture, no visible porosity or oil stain

9320-9350 LIMESTONE: mudstone, light brown to light brown gray, microcrystalline, friable to firm, earthy to slightly crystalline texture, no visible porosity; trace spotty light brown oil stain ANHYDRITE: cream to milky white, microcrystalline, soft, chalky texture, no visible porosity or oil stain

9350-9380 LIMESTONE: mudstone, light brown to light brown gray, microcrystalline, friable to firm, earthy to slightly crystalline texture, no visible porosity; trace spotty light brown oil stain; ANHYDRITE: cream to milky white, microcrystalline, soft, chalky texture, no visible porosity or oil stain

9380-9410 LIMESTONE: mudstone, light brown to light brown gray, occasional medium brown, microcrystalline, firm to friable, earthy to slightly crystalline texture, trace disseminated pyrite, no visible porosity , trace spotty light brown oil stain; DOLOMITE: mudstone, light gray brown, friable, earthy texture, no visible porosity or oil stain

9410-9440 DOLOMITE: mudstone, light gray brown, friable, earthy texture, no visible porosity or oil stain; ARGILLACEOUS LIMESTONE: mudstone, light gray to gray, microcrystalline, friable, earthy texture, trace disseminated pyrite, no visible porosity or oil stain

9440-9483 ARGILLACEOUS LIMESTONE: mudstone, light gray to gray, microcrystalline, friable, earthy texture, trace disseminated pyrite, no visible porosity or oil stain; ANHYDRITE: cream to milky white, microcrystalline, soft, chalky texture, no visible porosity or oil stain

Mission Canyon [Miss., Madison Gp]**9,483' (-7,273')**

9483-9500 LIMESTONE: mudstone, light brown gray, light brown, trace medium brown, microcrystalline, firm to friable, earthy to slightly crystalline texture, trace disseminated pyrite, trace pinpoint porosity, rare spotty light to medium brown oil stain; trace ARGILLACEOUS LIMESTONE: mudstone, medium to light gray brown, microcrystalline, friable, earthy texture, rare disseminated pyrite, no visible porosity or oil stain

9500-9530 LIMESTONE: mudstone, light brown gray, light brown, trace medium brown, microcrystalline, firm to friable, earthy to slightly crystalline texture, trace disseminated pyrite, trace pinpoint porosity, rare spotty light to medium brown oil stain; trace ARGILLACEOUS LIMESTONE: mudstone, medium to light gray brown, microcrystalline, friable, earthy texture, rare disseminated pyrite, no visible porosity or oil stain

9530-9560 LIMESTONE: mudstone, light brown gray, light brown, trace medium brown, microcrystalline, firm to friable, earthy to slightly crystalline texture, trace disseminated pyrite, trace pinpoint porosity, rare spotty light to medium brown oil stain; trace ARGILLACEOUS LIMESTONE: mudstone, medium to light gray brown, microcrystalline, friable, earthy texture, rare disseminated pyrite, no visible porosity or oil stain

9560-9590 No sample return

9590-9620 LIMESTONE: mudstone, dark gray, microcrystalline, firm, dense, earthy to trace crystalline texture, trace siliceous, possible fracture porosity, rare dark brown dead spotty oil stain; trace ANHYDRITE: off white, cryptocrystalline, soft, amorphous texture, no visible porosity

9620-9650 LIMESTONE: mudstone, dark gray, microcrystalline, firm, dense, earthy to trace crystalline texture, trace siliceous, possible fracture porosity, rare dark brown dead spotty oil stain

9650-9680 LIMESTONE: mudstone, light to medium brown, occasional light brown gray, rare cream, microcrystalline, firm to friable, earthy to slightly crystalline texture, argillaceous in part, rare algal material, trace calcite, trace disseminated pyrite, no visible porosity , rare spotty light to medium brown oil stain

9680-9710 Sample contaminated with LCM; LIMESTONE: mudstone, white to off white, light to medium brown, occasional light brown gray, microcrystalline, firm to friable, earthy to slightly crystalline texture, argillaceous in part, rare algal material, trace calcite, trace disseminated pyrite, no visible porosity , rare spotty light to medium brown oil stain; trace ARGILLACEOUS LIMESTONE: mudstone, medium to light gray brown, microcrystalline, friable, earthy texture, rare disseminated pyrite, no visible porosity or oil stain

9710-9740 LIMESTONE: mudstone, cream, occasional tan to very light brown, trace medium brown, microcrystalline, firm, earthy to slightly crystalline texture, trace calcite, trace disseminated pyrite, trace algal material, no visible porosity , rare spotty light brown oil stain

9740-9770 LIMESTONE: mudstone, cream, occasional tan to very light brown, trace medium gray brown, microcrystalline, firm, earthy to slightly crystalline texture, trace calcite, trace disseminated pyrite, no visible porosity , trace spotty light brown oil stain

9770-9800 LIMESTONE: mudstone, cream, occasional tan to very light brown, trace medium brown, microcrystalline, firm, earthy to slightly crystalline texture, trace calcite, trace disseminated pyrite, trace algal material, no visible porosity , rare spotty light brown oil stain

9800-9830 LIMESTONE: mudstone, cream, occasional tan to very light brown, rare medium brown, microcrystalline, firm, earthy to slightly crystalline texture, trace calcite, trace disseminated pyrite, trace algal material, no visible porosity , rare spotty light brown oil stain

9830-9860 LIMESTONE: mudstone, cream, occasional tan to very light brown, trace medium brown, microcrystalline, firm, earthy to slightly crystalline texture, trace calcite, trace disseminated pyrite, no visible porosity, rare spotty light brown oil stain

9860-9890 LIMESTONE: mudstone, cream, occasional tan to very light brown, trace medium gray brown, microcrystalline, firm, earthy to slightly crystalline texture, trace calcite, trace disseminated pyrite, no visible porosity, trace spotty light brown oil stain

9890-9920 LIMESTONE: mudstone, cream, occasional tan to very light brown, trace medium gray brown, microcrystalline, firm, earthy to slightly crystalline texture, trace calcite, trace disseminated pyrite, no visible porosity, trace spotty light brown oil stain

9920-9950 LIMESTONE: mudstone, cream, occasional tan to very light brown, trace medium gray brown, microcrystalline, firm, earthy to slightly crystalline texture, trace calcite, trace disseminated pyrite, no visible porosity, no visible oil stain

9950-9980 ARGILLACEOUS LIMESTONE: mudstone, light gray to gray brown, microcrystalline to very fine crystalline, firm to hard, earthy, slightly dolomitic, trace disseminated pyrite, no visible porosity; DOLOMITIC LIMESTONE: mudstone, off white to cream, tan to light brown, light gray brown, very fine grained, firm to hard, crystalline texture, trace alga laminated, slightly argillaceous, trace light brown oil stain, no visible porosity

9980-10010ARGILLACEOUS LIMESTONE: mudstone, light gray to gray brown, microcrystalline to very fine crystalline, firm to hard, earthy, slightly dolomitic, trace disseminated pyrite, no visible porosity; DOLOMITIC LIMESTONE: mudstone, off white to cream, tan to light brown, light gray brown, very fine grained, firm to hard, crystalline texture, trace alga laminated, slightly argillaceous, trace light brown oil stain, no visible porosity

10010-10024 DOLOMITE: wackestone, light to medium brown, trace light gray, very fine crystalline, sucrosic texture, firm to hard, rare to occasional intercrystalline porosity, rare dark brown spotty oil stain; ARGILLACEOUS LIMESTONE: mudstone, light to medium brown, trace tan, very fine crystalline, firm to hard, dense, earthy texture, trace intercrystalline porosity, trace dark brown spotty oil stain

Lodgepole Formation [Miss., Madison Gp]

10,024' (-7,815)

10010-10040 DOLOMITE: wackestone, light to medium brown, trace light gray, very fine crystalline, sucrosic texture, firm to hard, rare to occasional intercrystalline porosity, rare dark brown spotty oil stain; ARGILLACEOUS LIMESTONE: mudstone, light to medium brown, trace tan, very fine crystalline, firm to hard, dense, earthy texture, trace intercrystalline porosity, trace dark brown spotty oil stain

10024-10070 LIMESTONE: cream to white, gray, light gray, light brown, very fine crystalline, friable to soft, microsucrosic texture, argillaceous in part, dolomitic in part, trace intercrystalline porosity, trace light black oil stain; ARGILLACEOUS LIMESTONE: mudstone tan, light gray brown, light gray, microcrystalline, firm soft, earthy texture

10070-10100 LIMESTONE: cream to white, gray, light gray, light brown, very fine crystalline, friable, microsucrosic texture, argillaceous in part, dolomitic in part, trace intercrystalline porosity, trace light black oil stain; ARGILLACEOUS LIMESTONE: mudstone, tan, light gray brown, light gray, microcrystalline, firm soft, earthy texture

10100-10130 ARGILLACEOUS LIMESTONE: mudstone, light gray to gray brown, microcrystalline to very fine crystalline, firm to hard, earthy, trace disseminated pyrite, no visible porosity; LIMESTONE: mudstone, light gray, white, cream, microcrystalline to very fine crystalline, firm to hard, earthy to slightly microsucrosic, slightly dolomitic, no visible porosity

10130-10160 LIMESTONE: mudstone, light gray to occasional off white to trace dark brown, microcrystalline, firm to trace hard, dense, earthy to trace crystalline texture, trace siliceous, trace oids, possible intergranular to trace intercrystalline porosity, trace dark brown dead spotty oil stain

10160-10190 LIMESTONE: mudstone, medium gray to rare light gray to rare off white to trace dark gray, microcrystalline, firm to trace hard, dense, earthy to rare crystalline texture, siliceous in part, possible intercrystalline porosity, trace dark brown dead spotty oil stain

10190-10220 ARGILLACEOUS LIMESTONE: mudstone, medium gray to occasional light gray to rare off white to trace dark gray, microcrystalline, firm to rare hard, dense, earthy to occasional crystalline texture, siliceous in part, no visible porosity

10220-10250 ARGILLACEOUS LIMESTONE: mudstone, light gray to rare medium gray to trace medium brown, microcrystalline, firm to trace hard, dense, earthy to trace crystalline texture, trace siliceous, no visible porosity

10250-10280 No Sample due to TOOH

10280-10310 ARGILLACEOUS LIMESTONE: mudstone, medium gray to rare off white to rare medium brown, microcrystalline, firm to common hard, dense, earthy to rare crystalline texture, siliceous in part, no visible porosity

10310-10340 ARGILLACEOUS LIMESTONE: mudstone, medium gray to rare light gray to trace medium brown, microcrystalline, firm to trace hard, dense, earthy to trace crystalline texture, trace siliceous, no visible porosity

10340-10370 ARGILLACEOUS LIMESTONE: mudstone, medium gray to light gray cream mottled, microcrystalline, firm to trace hard, dense, earthy to trace crystalline texture, trace siliceous, no visible porosity

10370-10400 ARGILLACEOUS LIMESTONE: mudstone, medium gray to trace cream, microcrystalline, firm to trace hard, dense, earthy to trace crystalline texture, trace siliceous, no visible porosity

10400-10430 ARGILLACEOUS LIMESTONE: mudstone, medium gray to light gray, microcrystalline, firm to trace hard, dense, earthy to trace crystalline texture, trace siliceous, no visible porosity

10430-10460 ARGILLACEOUS LIMESTONE: mudstone, light gray to trace medium gray, microcrystalline, firm to trace hard, dense, earthy to trace crystalline texture, trace siliceous, no visible porosity

10460-10490 LIMESTONE: mudstone, light gray, white, cream, microcrystalline to very fine crystalline, firm to hard, earthy to slightly microscrosic, no visible porosity; ARGILLACEOUS LIMESTONE: mudstone, light gray to gray brown, microcrystalline to very fine crystalline, firm to hard, dense, earthy, trace disseminated pyrite, no visible porosity

10490-10520 LIMESTONE: mudstone, light gray, white, cream, microcrystalline to very fine crystalline, firm to hard, earthy to slightly microscrosic, no visible porosity; ARGILLACEOUS LIMESTONE: mudstone, light gray to gray brown, microcrystalline to very fine crystalline, firm to hard, dense, earthy, trace disseminated pyrite, no visible porosity

10520-10550 LIMESTONE: mudstone, light gray, white, cream, microcrystalline to very fine crystalline, firm to hard, earthy to slightly microscrosic, no visible porosity; ARGILLACEOUS LIMESTONE: mudstone, light gray to gray brown, microcrystalline to very fine crystalline, firm to hard, dense, earthy, trace disseminated pyrite, no visible porosity

10550-10580 LIMESTONE: mudstone, light gray, white, cream, microcrystalline to very fine crystalline, firm to hard, earthy to slightly microscrosic, no visible porosity; ARGILLACEOUS LIMESTONE: mudstone, light gray to gray brown, microcrystalline to very fine crystalline, firm to hard, dense, earthy, trace disseminated pyrite, no visible porosity

10580-10610 LIMESTONE: mudstone, light gray, white, cream, microcrystalline to very fine crystalline, firm to hard, earthy to slightly microscrosic, no visible porosity; ARGILLACEOUS LIMESTONE: mudstone, light gray to gray brown, microcrystalline to very fine crystalline, firm to hard, dense, earthy, trace disseminated pyrite, no visible porosity

10610-10640 LIMESTONE: mudstone, light gray, white, cream, microcrystalline to very fine crystalline, firm to hard, earthy to slightly microscrosic, no visible porosity; ARGILLACEOUS LIMESTONE: mudstone, light gray to gray brown, microcrystalline to very fine crystalline, firm to hard, dense, earthy, trace disseminated pyrite, no visible porosity

10640-10670 LIMESTONE: mudstone, light gray, white, cream, microcrystalline to very fine crystalline, firm to hard, earthy to slightly microscrosic, no visible porosity; ARGILLACEOUS LIMESTONE: mudstone, light gray to gray brown, microcrystalline to very fine crystalline, firm to hard, dense, earthy, trace disseminated pyrite, no visible porosity

10670-10700 LIMESTONE: mudstone, light gray, white, cream, microcrystalline to very fine crystalline, firm to hard, earthy to slightly microscrosic, no visible porosity; ARGILLACEOUS LIMESTONE: mudstone, light gray to gray brown, microcrystalline to very fine crystalline, firm to hard, dense, earthy, trace disseminated pyrite, no visible porosity

10700-10730 LIMESTONE: mudstone, light gray, white, cream, microcrystalline to very fine crystalline, firm to hard, earthy to slightly microscrosic, no visible porosity; ARGILLACEOUS LIMESTONE: mudstone, light gray to gray brown, microcrystalline to very fine crystalline, firm to hard, dense, earthy, trace disseminated pyrite, no visible porosity

10730-10760 ARGILLACEOUS LIMESTONE: mudstone, medium gray to trace light gray, microcrystalline, firm to trace hard, dense, earthy to trace crystalline texture, trace siliceous, trace disseminated pyrite, no visible porosity

10760-10790 ARGILLACEOUS LIMESTONE: mudstone, light gray to occasional cream to rare medium gray, microcrystalline, firm, dense, earthy to trace crystalline texture, trace disseminated pyrite, trace siliceous, no visible porosity

10790-10820 ARGILLACEOUS LIMESTONE: mudstone, light gray to occasional cream to trace medium gray, microcrystalline, firm, dense, earthy to trace crystalline texture, trace disseminated pyrite, trace siliceous, no visible porosity

10820-10850 ARGILLACEOUS LIMESTONE: mudstone, light gray to occasional cream to rare medium gray, microcrystalline, firm, dense, earthy to trace crystalline texture, trace disseminated pyrite, trace siliceous, no visible porosity

10850-10880 ARGILLACEOUS LIMESTONE: mudstone, light gray to occasional cream to rare medium gray, microcrystalline, firm, dense, earthy to trace crystalline texture, trace disseminated pyrite, trace siliceous, no visible porosity

10880-10922 ARGILLACEOUS LIMESTONE: mudstone, light gray to occasional cream to rare medium gray, microcrystalline, firm, dense, earthy to trace crystalline texture, trace disseminated pyrite, trace siliceous, no visible porosity; SHALE: dark gray, dark brown, black, blocky to platey, friable, occasionally soft, calcareous in part, trace fracture porosity

Upper Bakken Shale /Miss.] **10,922' (10,775' TVD, -8,566')**

10922-10940 LIMESTONE: wackestone to mudstone, light gray, white, cream, microcrystalline to very fine crystalline, firm to hard, earthy to slightly microsucrosic, slightly dolomitic, occasional sparry calcite trace light black oil stain occasional intercrystalline porosity, occasional fractured porosity; SHALE: black, firm, subblocky, earthy texture, carbonaceous, petroliferous, common disseminated pyrite, rare nodular pyrite, no visible porosity

10940-10975 SHALE: black, dark brown, firm to friable, subblocky to subplatey, earthy texture, petroliferous, carbonaceous, abundant disseminated pyrite, nodular pyrite, no visible porosity; SILTSTONE: medium gray brown, soft to friable, subblocky to subplatey, very fine grained, dolomitic cement, moderately cemented, occasional disseminated pyrite, possible intergranular porosity

Middle Bakken /Dev.-Miss.] **10,975' (10,791' TVD, -8,600)**

10975-11000 SILTSTONE: medium gray brown, soft to friable, subblocky to subplatey, very fine grained, dolomitic cement, moderately cemented, occasional disseminated pyrite, possible intergranular porosity

11000-11030 SILTSTONE: medium gray brown, soft to friable, subblocky to subplatey, very fine grained, dolomitic cement, moderately cemented, occasional disseminated pyrite, possible intergranular porosity

11030-11060 SILTSTONE: medium gray, friable, subblocky to subplatey, calcareous cement, moderately cemented, trace disseminated pyrite, no visible porosity; trace SILTY SANDSTONE: light gray to trace cream, very fine grained, friable, subangular to subrounded, well sorted, calcareous cement, moderately cemented, trace disseminated pyrite, possible intergranular porosity, trace dark brown spotty to even oil stain

11060-11090 SILTSTONE: medium gray, friable, subblocky to subplatey, calcareous cement, moderately cemented, trace disseminated pyrite, no visible porosity; rare SILTY SANDSTONE: light gray to occasional cream, very fine grained, friable, subangular to subrounded, well sorted, calcareous cement, moderately cemented, trace disseminated pyrite, possible intergranular porosity, rare dark brown spotty oil stain

11090-11120 SILTY SANDSTONE: cream to trace light gray, very fine grained, friable, subangular to subrounded, well sorted, calcareous cement, moderately cemented, trace disseminated pyrite, trace nodular pyrite, possible intergranular porosity, occasional dark brown spotty oil stain

11120-11150 SILTY SANDSTONE: cream to trace light gray, very fine grained, soft, subangular to subrounded, well sorted, calcareous cement, poorly cemented, trace disseminated pyrite, possible intergranular porosity, trace dark brown spotty oil stain

11150-11180 SILTY SANDSTONE: cream to trace light gray, very fine grained, friable, subangular to subrounded, well sorted, calcareous cement, moderately cemented, trace disseminated pyrite, possible intergranular porosity, trace dark brown spotty oil stain

11180-11210 SILTY SANDSTONE: cream to trace light gray, very fine grained, friable, subangular to subrounded, well to trace moderately sorted, calcareous cement, moderately cemented, trace disseminated pyrite, possible intergranular porosity, trace dark brown spotty oil stain

11210-11240 SILTY SANDSTONE: light gray to occasional cream, very fine grained, friable, subangular to subrounded, well sorted, calcareous cement, moderately cemented, trace disseminated pyrite, possible intergranular porosity, rare dark brown spotty oil stain; SILTSTONE: medium gray, friable, subblocky to subplatey, calcareous cement, moderately cemented, trace disseminated pyrite, no visible porosity; rare

11240-11270 SILTY SANDSTONE: cream to trace light gray, very fine grained, friable, subangular to subrounded, well to trace moderately sorted, calcareous cement, moderately cemented, trace disseminated pyrite, possible intergranular porosity, trace dark brown spotty oil stain

11270-11300 SILTY SANDSTONE: cream to trace light gray, very fine grained, friable, subangular to subrounded, well to trace moderately sorted, calcareous cement, moderately cemented, trace disseminated pyrite, possible intergranular porosity, trace dark brown spotty oil stain

11300-11330 SILTY SANDSTONE: cream to trace light gray, very fine grained, friable, subangular to subrounded, well to trace moderately sorted, calcareous cement, moderately cemented, trace disseminated pyrite, possible intergranular porosity, trace dark brown spotty oil stain

11330-11360 SILTY SANDSTONE: cream to trace light gray, very fine grained, friable, subangular to subrounded, well to trace moderately sorted, calcareous cement, moderately cemented, trace disseminated pyrite, possible intergranular porosity, trace dark brown spotty oil stain

11360-11390 SILTY SANDSTONE: cream to trace light gray, very fine grained, friable, subangular to subrounded, well to trace moderately sorted, calcareous cement, moderately cemented, trace disseminated pyrite, possible intergranular porosity, trace dark brown spotty oil stain

11390-11420 SILTY SANDSTONE: cream to trace light gray, very fine grained, friable, subangular to subrounded, well to trace moderately sorted, calcareous cement, moderately cemented, trace disseminated pyrite, possible intergranular porosity, trace dark brown spotty oil stain

11420-11450 SILTY SANDSTONE: cream to trace light gray, very fine grained, friable, subangular to subrounded, well to trace moderately sorted, calcareous cement, moderately cemented, trace disseminated pyrite, possible intergranular porosity, trace dark brown spotty oil stain

11450-11480 SILTY SANDSTONE: cream to trace light gray, very fine grained, friable, subangular to subrounded, well sorted, calcareous cement, moderately cemented, trace disseminated pyrite, possible intergranular porosity, trace dark brown spotty oil stain

11480-11510 SILTY SANDSTONE: cream to rare light gray, very fine grained, friable, subangular to subrounded, well to trace moderately sorted, calcareous cement, moderately cemented, trace disseminated pyrite, possible intergranular porosity, trace dark brown spotty oil stain

11510-11550 SILTY SANDSTONE: cream to occasional light gray, very fine grained, soft to trace friable, subangular to subrounded, calcareous cement, poorly to trace moderately cemented, trace disseminated pyrite, possible intergranular porosity, trace dark brown spotty oil stain; trace SILTSTONE: light gray, soft, subblocky to subplatey, calcareous cement, poorly cemented, trace disseminated pyrite, no visible porosity

11550-11600 SILTY SANDSTONE: cream, very fine grained, soft to trace friable, subangular to subrounded, calcareous cement, poorly to trace moderately cemented, trace disseminated pyrite, possible intergranular porosity, occasional dark brown spotty oil stain; rare SILTSTONE: light gray, soft, subblocky to subplatey, calcareous cement, poorly cemented, trace disseminated pyrite, no visible porosity

11600-11650 SILTY SANDSTONE: cream, very fine grained, soft to trace friable, subangular to subrounded, calcareous cement, poorly to trace moderately cemented, trace disseminated pyrite, possible intergranular porosity, occasional dark brown spotty oil stain; rare SILTSTONE: light gray, soft, subblocky to subplatey, calcareous cement, poorly cemented, trace disseminated pyrite, no visible porosity

11650-11700 SILTY SANDSTONE: cream, very fine grained, soft to trace friable, subangular to subrounded, calcareous cement, poorly to trace moderately cemented, trace disseminated pyrite, possible intergranular porosity, occasional dark brown spotty oil stain; rare SILTSTONE: light gray, soft, subblocky to subplatey, calcareous cement, poorly cemented, trace disseminated pyrite, no visible porosity

11700-11750 SILTSTONE: light gray, soft, subblocky to subplatey, calcareous cement, poorly cemented, trace disseminated pyrite, no visible porosity, SILTY SANDSTONE: light gray, tan to light brown, very fine grained, soft to trace friable, subangular to subrounded, calcareous cement, poorly to trace moderately cemented, trace disseminated pyrite, possible intergranular porosity, occasional dark brown spotty oil stain;

11750-11800 SILTSTONE: light gray, soft, subblocky to subplatey, calcareous cement, poorly cemented, trace disseminated pyrite, no visible porosity; SILTY SANDSTONE: light gray, tan to light brown, very fine grained, soft to trace friable, subangular to subrounded, calcareous cement, poorly to trace moderately cemented, trace disseminated pyrite, possible intergranular porosity, occasional dark brown spotty oil stain;

11800-11850 SILTSTONE: light gray, soft, subblocky to subplatey, calcareous cement, poorly cemented, trace disseminated pyrite, no visible porosity; SILTY SANDSTONE: light gray, tan to light brown, very fine grained, soft to trace friable, subangular to subrounded, calcareous cement, poorly to trace moderately cemented, trace disseminated pyrite, possible intergranular porosity, occasional dark brown spotty oil stain;

11850-11900 SILTY SANDSTONE: light gray, tan to light brown, very fine grained, soft to trace friable, subangular to subrounded, calcareous cement, poorly to trace moderately cemented, trace disseminated pyrite, possible intergranular porosity, occasional dark brown spotty oil stain;

11900-11950 SILTY SANDSTONE: light gray, tan to light brown, very fine grained, soft to trace friable, subangular to subrounded, calcareous cement, poorly to trace moderately cemented, trace disseminated pyrite, possible intergranular porosity, occasional dark brown spotty oil stain;

11950-12000 SILTY SANDSTONE: light gray to rare cream, very fine grained, soft to occasional loose to trace friable, subangular to subrounded, well sorted, calcareous cement, poorly to occasional very poorly to trace moderately cemented, trace disseminated pyrite, possible intergranular porosity, trace dark brown spotty oil stain

12000-12050 SILTY SANDSTONE: light gray to occasional cream, very fine grained, soft to rare friable, subangular to subrounded, well sorted, calcareous cement, poorly to rare moderately cemented, trace disseminated pyrite, possible intergranular porosity, trace dark brown spotty oil stain

12050-12100 SILTY SANDSTONE: light gray to rare cream, very fine grained, soft to trace friable, subangular to subrounded, well sorted, calcareous cement, poorly to trace moderately cemented, trace disseminated pyrite, possible intergranular porosity, trace dark brown spotty oil stain

12100-12150 SILTY SANDSTONE: light gray to occasional cream, very fine grained, friable to trace soft to trace firm, subangular to subrounded, well sorted, calcareous cement, moderately to trace poorly to trace well cemented, trace disseminated pyrite, possible intergranular porosity, occasional dark brown spotty oil stain

12150-12200 SILTY SANDSTONE: light gray to occasional cream to trace medium gray, very fine grained, soft to trace friable to trace firm, subangular to subrounded, well sorted, calcareous cement, poorly to trace moderately to trace well cemented, trace disseminated pyrite, possible intergranular porosity, rare dark brown spotty oil stain

12200-12250 SILTY SANDSTONE: light gray to rare cream, very fine grained, soft to rare friable, subangular to subrounded, well sorted, calcareous cemented, poorly to rare moderately cemented, trace disseminated pyrite, possible intergranular porosity, occasional dark brown spotty oil stain

12250-12300 SILTY SANDSTONE: light gray to rare cream, very fine grained, soft to rare firm, subangular to subrounded, well sorted, calcareous cement, poorly to rare well cemented, trace disseminated pyrite, possible intergranular porosity, common dark brown spotty oil stain

12300-12350 SILTY SANDSTONE: light gray to rare cream, very fine grained, soft to trace firm, subangular to subrounded, well sorted, calcareous cement, poorly to trace well cemented, trace disseminated pyrite, possible intergranular porosity, rare dark brown spotty oil stain

12350-12400 SILTY SANDSTONE: light gray to rare cream, very fine grained, soft to trace friable to trace firm, subangular to subrounded, well sorted, calcareous cement, poorly to trace moderately to trace well cemented, trace disseminated pyrite, possible intergranular porosity, trace disseminated pyrite, rare dark brown spotty oil stain

12400-12450 SILTY SANDSTONE: light gray to rare cream, very fine grained, soft to trace friable to trace firm, subangular to subrounded, well sorted, calcareous cement, poorly to trace moderately to trace well cemented, trace disseminated pyrite, possible intergranular porosity, trace disseminated pyrite, rare dark brown spotty oil stain

12450-12500 SILTY SANDSTONE: light gray to rare cream, very fine grained, soft to trace friable to trace firm, subangular to subrounded, well sorted, calcareous cement, poorly to trace moderately to trace well cemented, trace disseminated pyrite, possible intergranular porosity, trace disseminated pyrite, rare dark brown spotty oil stain

12500-12550 SILTY SANDSTONE: light gray to rare cream, very fine grained, soft to trace friable to trace firm, subangular to subrounded, well sorted, calcareous cement, poorly to trace moderately to trace well cemented, trace disseminated pyrite, possible intergranular porosity, trace disseminated pyrite, rare dark brown spotty oil stain

12550-12650 SILTY SANDSTONE: light gray to rare cream, very fine grained, soft to trace friable to trace firm, subangular to subrounded, well sorted, calcareous cement, poorly to trace moderately to trace well cemented, trace disseminated pyrite, possible intergranular porosity, trace disseminated pyrite, rare dark brown spotty oil stain

12650-12700 SILTY SANDSTONE: light gray to rare cream, very fine grained, soft to trace friable to trace firm, subangular to subrounded, well sorted, calcareous cement, poorly to trace moderately to trace well cemented, trace disseminated pyrite, possible intergranular porosity, trace disseminated pyrite, rare dark brown spotty oil stain; very trace LIMESTONE: packstone, white to off white, cream to tan, microcrystalline, friable to firm, crystalline texture, common oolites and pellets, possible intercrystalline porosity

12650-12700 SILTY SANDSTONE: light gray to rare cream, very fine grained, soft to trace friable to trace firm, subangular to subrounded, well sorted, calcareous cement, poorly to trace moderately to trace well cemented, trace disseminated pyrite, possible intergranular porosity, trace disseminated pyrite, rare dark brown spotty oil stain

12700-12750 SILTY SANDSTONE: light gray to rare cream, very fine grained, soft to trace friable to trace firm, subangular to subrounded, well sorted, calcareous cement, poorly to trace moderately to trace well cemented, trace disseminated pyrite, possible intergranular porosity, trace disseminated pyrite, rare dark brown spotty oil stain

12750-12800 SILTY SANDSTONE: light gray to rare cream, very fine grained, soft to trace friable to trace firm, subangular to subrounded, well sorted, calcareous cement, poorly to trace moderately to trace well cemented, trace disseminated pyrite, possible intergranular porosity, trace disseminated pyrite, rare dark brown spotty oil stain

12800-12850 SILTY SANDSTONE: light gray to rare cream, very fine grained, soft to trace friable to trace firm, subangular to subrounded, well sorted, calcareous cement, poorly to trace moderately to trace well cemented, trace disseminated pyrite, possible intergranular porosity, trace disseminated pyrite, rare dark brown spotty oil stain

12850-12900 SILTY SANDSTONE: light gray to rare cream, very fine grained, soft to trace friable to trace firm, subangular to subrounded, well sorted, calcareous cement, poorly to trace moderately to trace well cemented, trace disseminated pyrite, possible intergranular porosity, trace disseminated pyrite, rare dark brown spotty oil stain

12900-12950 SILTY SANDSTONE: light gray to rare cream, very fine grained, soft to trace friable to trace firm, subangular to subrounded, well sorted, calcareous cement, poorly to trace moderately to trace well cemented, trace disseminated pyrite, possible intergranular porosity, trace disseminated pyrite, rare dark brown spotty oil stain

12950-13000 SILTY SANDSTONE: light gray to rare cream, very fine grained, soft to trace friable to trace firm, subangular to subrounded, well sorted, calcareous cement, poorly to trace moderately to trace well cemented, trace disseminated pyrite, possible intergranular porosity, trace disseminated pyrite, rare dark brown spotty oil stain

13000-13050 SILTY SANDSTONE: light gray to rare cream, very fine grained, soft to trace friable to trace firm, subangular to subrounded, well sorted, calcareous cement, poorly to trace moderately to trace well cemented, trace disseminated pyrite, possible intergranular porosity, trace disseminated pyrite, rare dark brown spotty oil stain; LIMESTONE: packstone, white to off white, cream to tan, microcrystalline, friable to firm, crystalline texture, common oolites and pellets, possible intercrystalline porosity

13050-13100 SILTY SANDSTONE: light gray to rare cream, very fine grained, soft to trace friable to trace firm, subangular to subrounded, well sorted, calcareous cement, poorly to trace moderately to trace well cemented, trace disseminated pyrite, possible intergranular porosity, trace disseminated pyrite, rare dark brown spotty oil stain; trace LIMESTONE: packstone, white to off white, cream to tan, microcrystalline, friable to firm, crystalline texture, common oolites and pellets, possible intercrystalline porosity

13100-13150 SILTY SANDSTONE: light gray to trace cream, very fine grained, soft to rare firm, subangular to subrounded, well sorted, calcareous cement, poorly to rare well cemented, trace disseminated pyrite, possible intergranular porosity, occasional dark brown spotty oil stain

13150-13200 SILTY SANDSTONE: light gray to trace cream, very fine grained, soft, subangular to subrounded, well sorted, calcareous cement, poorly cemented, trace disseminated pyrite, possible intergranular porosity, common dark brown spotty oil stain

13200-13250 SILTY SANDSTONE: light gray to rare cream, very fine grained, soft to trace firm, subangular to subrounded, well sorted, calcareous cement, poorly to trace well cemented, trace disseminated pyrite, possible intergranular porosity, occasional dark brown spotty oil stain; trace SILTSTONE: light gray, soft, subblocky to subplatey, calcareous cement, poorly cemented, trace disseminated pyrite, no visible porosity

13250-13300 SILTY SANDSTONE: light gray to trace cream, very fine grained, soft to trace friable to trace firm, subangular to subrounded, well sorted, calcareous cement, poorly to trace moderately to trace well cemented, trace disseminated pyrite, possible intergranular porosity, common dark brown spotty oil stain

13300-13350 SILTY SANDSTONE: light gray to rare cream, very fine grained, soft to trace firm, subangular to subrounded, well sorted, calcareous cement, poorly to trace well cemented, trace disseminated pyrite, possible intergranular porosity, common dark brown spotty oil stain

13350-13400 SILTY SANDSTONE: light gray to occasional cream, very fine grained, soft to rare friable, subangular to subrounded, well sorted, calcareous cement, poorly to rare moderately cemented, trace disseminated pyrite, trace nodular pyrite, possible intergranular porosity, occasional dark brown spotty to even oil stain

13400-13450 SILTY SANDSTONE: light gray to occasional cream, very fine grained, soft to rare firm, subangular to subrounded, well sorted, calcareous cement, poorly to rare well cemented, sparry calcareous in part, trace disseminated pyrite, possible intergranular porosity, occasional dark brown spotty to even oil stain

13450-13500 SILTY SANDSTONE: light gray to occasional cream, very fine grained, soft to rare firm, subangular to subrounded, well sorted, calcareous cement, poorly to rare well cemented, sparry calcareous in part, trace disseminated pyrite, possible intergranular porosity, occasional dark brown spotty to even oil stain

13500-13550 SILTY SANDSTONE: light gray to rare cream, very fine grained, soft to trace firm, subangular to subrounded, well sorted, calcareous cement, poorly to trace well cemented, trace sparry calcareous, trace disseminated pyrite, trace nodular pyrite, possible intergranular porosity, common dark brown spotty to even oil stain

13550-13600 SILTY SANDSTONE: light gray to rare cream, very fine grained, soft to trace firm, subangular to subrounded, well sorted, calcareous cement, poorly to trace well cemented, trace sparry calcareous, trace disseminated pyrite, trace nodular pyrite, possible intergranular porosity, common dark brown spotty to even oil stain

13600-13650 SILTY SANDSTONE: light gray to trace cream, very fine grained, soft, subangular to subrounded, well sorted, calcareous cement, poorly cemented, trace nodular pyrite, trace disseminated pyrite, possible intergranular porosity, common dark brown spotty oil stain

13650-13700 SILTY SANDSTONE: light gray to trace cream, very fine grained, soft, subangular to subrounded, well sorted, calcareous cement, poorly cemented, trace disseminated pyrite, possible intergranular porosity, occasional dark brown spotty oil stain

13700-13750 SILTY SANDSTONE: light gray to rare cream, very fine grained, soft, subangular to subrounded, well sorted, calcareous cement, poorly cemented, trace sparry calcareous, trace disseminated pyrite, possible intergranular porosity, occasional dark brown spotty oil stain

13750-13800 SILTY SANDSTONE: light gray to rare cream, very fine grained, soft, subangular to subrounded, well sorted, calcareous cement, poorly cemented, trace sparry calcareous, trace disseminated pyrite, possible intergranular porosity, occasional dark brown spotty oil stain

13800-13850 SILTY SANDSTONE: light gray to rare cream, very fine grained, soft, subangular to subrounded, well sorted, calcareous cement, poorly cemented, trace sparry calcareous, trace disseminated pyrite, possible intergranular porosity, occasional dark brown spotty oil stain

13850-13900 SILTY SANDSTONE: light gray to rare cream, very fine grained, soft, subangular to subrounded, well sorted, calcareous cement, poorly cemented, trace sparry calcareous, trace disseminated pyrite, possible intergranular porosity, occasional dark brown spotty oil stain

13900-13950 SILTY SANDSTONE: light gray to rare cream, very fine grained, soft, subangular to subrounded, well sorted, calcareous cement, poorly cemented, trace sparry calcareous, trace disseminated pyrite, possible intergranular porosity, occasional dark brown spotty oil stain

13950-14000 SILTY SANDSTONE: light gray to rare cream, very fine grained, soft to trace friable to trace firm, subangular to subrounded, well sorted, calcareous cement, poorly to trace moderately to trace well cemented, trace disseminated pyrite, possible intergranular porosity, trace disseminated pyrite, rare dark brown spotty oil stain; trace LIMESTONE: packstone, white to off white, cream to tan, microcrystalline, friable to firm, crystalline texture, common oolites and pellets, possible intercrystalline porosity

14000-14050 SILTY SANDSTONE: light gray to rare cream, very fine grained, soft to trace friable to trace firm, subangular to subrounded, well sorted, calcareous cement, poorly to trace moderately to trace well cemented, trace disseminated pyrite, possible intergranular porosity, trace disseminated pyrite, rare dark brown spotty oil stain; trace LIMESTONE: packstone, white to off white, cream to tan, microcrystalline, friable to firm, crystalline texture, common oolites and pellets, possible intercrystalline porosity

14050-14100 SILTY SANDSTONE: light gray to rare cream, very fine grained, soft to trace friable to trace firm, subangular to subrounded, well sorted, calcareous cement, poorly to trace moderately to trace well cemented, trace disseminated pyrite, possible intergranular porosity, trace disseminated pyrite, rare dark brown spotty oil stain

14100-14150 SILTY SANDSTONE: light gray to rare cream, very fine grained, soft to trace friable to trace firm, subangular to subrounded, well sorted, calcareous cement, poorly to trace moderately to trace well cemented, trace disseminated pyrite, possible intergranular porosity, trace disseminated pyrite, rare dark brown spotty oil stain

14150-14200 SILTY SANDSTONE: light gray to rare cream, tan to light brown very fine grained, soft to trace friable to trace firm, subangular to subrounded, well sorted, calcareous cement, poorly to trace moderately to trace well cemented, trace disseminated pyrite, possible intergranular porosity, trace disseminated pyrite, rare dark brown spotty oil stain

14200-14250 SILTY SANDSTONE: light gray to rare cream, tan to light brown, very fine grained, soft to trace friable to trace firm, subangular to subrounded, well sorted, calcareous cement, poorly to trace moderately to trace well cemented, trace disseminated pyrite, possible intergranular porosity, trace disseminated pyrite, rare dark brown spotty oil stain

14250-14300 SILTY SANDSTONE: light gray to rare cream, tan to light brown, very fine grained, soft to trace friable to trace firm, subangular to subrounded, well sorted, calcareous cement, poorly to trace moderately to trace well cemented, trace disseminated pyrite, possible intergranular porosity, trace disseminated pyrite, rare dark brown spotty oil stain; SILTSTONE: light gray, soft, subblocky to subplatey, calcareous cement, poorly cemented, trace disseminated pyrite, no visible porosity

14300-14350 SILTY SANDSTONE: light gray to rare cream, tan to light brown, very fine grained, soft to trace friable to trace firm, subangular to subrounded, well sorted, calcareous cement, poorly to trace moderately to trace well cemented, trace disseminated pyrite, possible intergranular porosity, trace disseminated pyrite, rare dark brown spotty oil stain; SILTSTONE: light gray, soft, subblocky to subplatey, calcareous cement, poorly cemented, trace disseminated pyrite, no visible porosity

14350-14400 SILTY SANDSTONE: light gray to occasional cream, very fine grained, soft, subangular to subrounded, well sorted, calcareous cement, poorly cemented, trace disseminated pyrite, trace sparry calcareous, possible intergranular porosity, occasional dark brown spotty oil stain

14400-14450 SILTY SANDSTONE: light gray to rare cream, very fine grained, soft to trace friable, subangular to subrounded, well sorted, calcareous cement, poorly to trace moderately cemented, trace sparry calcareous, trace disseminated pyrite, possible intergranular porosity, common dark brown spotty to even oil stain

14450-14500 SILTY SANDSTONE: light gray to trace cream, very fine grained, soft, subangular to subrounded, well sorted, calcareous cement, poorly cemented, trace disseminated pyrite, possible intergranular porosity, occasional dark brown spotty oil stain

14500-14550 SILTY SANDSTONE: light gray, very fine grained, soft, subangular to subrounded, well sorted, calcareous cement, poorly cemented, trace disseminated pyrite, possible intergranular porosity, occasional dark brown spotty oil stain

14550-14600 SILTY SANDSTONE: light gray to trace cream, very fine grained, soft, subangular to subrounded, well sorted, calcareous cement, poorly cemented, trace disseminated pyrite, possible intergranular porosity, occasional dark brown spotty to even oil stain

14600-14650 SILTY SANDSTONE: light gray to rare cream, very fine grained, soft, subangular to subrounded, well sorted, calcareous cement, poorly cemented, trace disseminated pyrite, possible intergranular porosity, common dark brown spotty to even oil stain

14650-14700 SILTY SANDSTONE: light gray to rare cream, very fine grained, soft, subangular to subrounded, well sorted, calcareous cement, poorly cemented, trace disseminated pyrite, trace sparry calcareous, possible intergranular porosity, common dark brown spotty oil stain

14700-14750 SILTY SANDSTONE: light gray to rare cream, very fine grained, soft, subangular to subrounded, well sorted, calcareous cement, poorly cemented, trace disseminated pyrite, trace sparry calcareous, possible intergranular porosity, common dark brown spotty oil stain

14750-14800 SILTY SANDSTONE: light gray to trace cream, very fine grained, soft, subangular to subrounded, well sorted, calcareous cement, poorly cemented, trace disseminated pyrite, possible intergranular porosity, common dark brown spotty to even oil stain

14800-14850 SILTY SANDSTONE: light gray to occasional cream, very fine grained, soft to trace firm, subangular to subrounded, well sorted, calcareous cement, poorly to trace well cemented, sparry calcareous in part, trace disseminated pyrite, possible intergranular porosity, occasional dark brown spotty to even oil stain

14850-14900 SILTY SANDSTONE: light gray to occasional cream, very fine grained, soft to trace firm, subangular to subrounded, well sorted, calcareous cement, poorly to trace well cemented, sparry calcareous in part, trace disseminated pyrite, possible intergranular porosity, occasional dark brown spotty to even oil stain

14900-14950 SILTY SANDSTONE: light gray to rare cream, very fine grained, soft to trace friable, subangular to subrounded, well sorted, calcareous cement, poorly to trace moderately cemented, trace sparry calcareous, trace disseminated pyrite, possible intergranular porosity, common dark brown spotty oil stain

14950-15000 SILTY SANDSTONE: light gray to rare cream, very fine grained, soft to trace friable, subangular to subrounded, well sorted, calcareous cement, poorly to trace moderately cemented, trace sparry calcareous, trace disseminated pyrite, possible intergranular porosity, common dark brown spotty oil stain

15000-15050 SILTY SANDSTONE: light gray to rare cream, very fine grained, soft to trace friable, subangular to subrounded, well sorted, calcareous cement, poorly to trace moderately cemented, trace sparry calcareous, trace disseminated pyrite, possible intergranular porosity, common dark brown spotty oil stain

15050-15100 SILTY SANDSTONE: light gray to rare cream, very fine grained, soft to trace friable, subangular to subrounded, well sorted, calcareous cement, poorly to trace moderately cemented, trace sparry calcareous, trace disseminated pyrite, possible intergranular porosity, common dark brown spotty oil stain

15100-15150 SILTY SANDSTONE: light gray to rare cream, very fine grained, soft to trace friable, subangular to subrounded, well sorted, calcareous cement, poorly to trace moderately cemented, trace sparry calcareous, trace disseminated pyrite, possible intergranular porosity, common dark brown spotty oil stain

15150-15200 SILTY SANDSTONE: light gray to rare cream, very fine grained, soft to trace friable, subangular to subrounded, well sorted, calcareous cement, poorly to trace moderately cemented, trace sparry calcareous, trace disseminated pyrite, possible intergranular porosity, common dark brown spotty oil stain

15200-15250 SILTY SANDSTONE: light gray to rare cream, very fine grained, soft to trace friable, subangular to subrounded, well sorted, calcareous cement, poorly to trace moderately cemented, trace sparry calcareous, trace disseminated pyrite, possible intergranular porosity, common dark brown spotty oil stain

15250-15300 SILTY SANDSTONE: light gray to rare cream, very fine grained, soft to trace friable, subangular to subrounded, well sorted, calcareous cement, poorly to trace moderately cemented, trace sparry calcareous, trace disseminated pyrite, possible intergranular porosity, common dark brown spotty oil stain

15300-15350 SILTY SANDSTONE: light gray to rare cream, very fine grained, soft to trace friable, subangular to subrounded, well sorted, calcareous cement, poorly to trace moderately cemented, trace sparry calcareous, trace disseminated pyrite, possible intergranular porosity, common dark brown spotty oil stain

15350-15400 SILTY SANDSTONE: light gray to rare cream, very fine grained, soft to trace friable, subangular to subrounded, well sorted, calcareous cement, poorly to trace moderately cemented, trace sparry calcareous, trace disseminated pyrite, possible intergranular porosity, common dark brown spotty oil stain

15400-15450 SILTY SANDSTONE: light gray to rare cream, very fine grained, soft to trace friable, subangular to subrounded, well sorted, calcareous cement, poorly to trace moderately cemented, trace sparry calcareous, trace disseminated pyrite, possible intergranular porosity, common dark brown spotty oil stain

15450-15500 SILTY SANDSTONE: light gray to rare cream, very fine grained, soft to trace friable, subangular to subrounded, well sorted, calcareous cement, poorly to trace moderately cemented, trace sparry calcareous, trace disseminated pyrite, possible intergranular porosity, common dark brown spotty oil stain

15500-15550 SILTY SANDSTONE: light gray to trace cream, very fine grained, soft, subangular to subrounded, well sorted, calcareous cement, poorly cemented, trace sparry calcareous, trace disseminated pyrite, possible intergranular porosity, rare dark brown spotty oil stain

15550-15600 SILTY SANDSTONE: light gray to trace cream, very fine grained, soft, subangular to subrounded, well sorted, calcareous cement, poorly cemented, trace sparry calcareous, trace disseminated pyrite, possible intergranular porosity, trace dark brown spotty oil stain

15600-15650 SILTY SANDSTONE: light gray to trace cream, very fine grained, soft, subangular to subrounded, well sorted, calcareous cement, poorly cemented, trace sparry calcareous, trace disseminated pyrite, possible intergranular porosity, trace dark brown spotty oil stain

15650-15700 SILTY SANDSTONE: light gray to trace cream, very fine grained, soft, subangular to subrounded, well sorted, calcareous cement, poorly cemented, trace sparry calcareous, trace disseminated pyrite, possible intergranular porosity, trace dark brown spotty oil stain

15700-15750 SILTY SANDSTONE: light gray to trace cream, very fine grained, soft, subangular to subrounded, well sorted, calcareous cement, poorly cemented, trace sparry calcareous, trace disseminated pyrite, possible intergranular porosity, trace dark brown spotty oil stain

15750-15800 SILTY SANDSTONE: light gray to trace cream, very fine grained, soft, subangular to subrounded, well sorted, calcareous cement, poorly cemented, trace sparry calcareous, trace disseminated pyrite, possible intergranular porosity, trace dark brown spotty oil stain

15800-15850 SILTY SANDSTONE: light gray to trace cream, very fine grained, soft, subangular to subrounded, well sorted, calcareous cement, poorly cemented, trace sparry calcareous, trace disseminated pyrite, possible intergranular porosity, trace dark brown spotty oil stain

15850-15900 SILTY SANDSTONE: light gray to trace cream, very fine grained, soft, subangular to subrounded, well sorted, calcareous cement, poorly cemented, trace sparry calcareous, trace disseminated pyrite, possible intergranular porosity, trace dark brown spotty oil stain

15900-15950 SILTY SANDSTONE: light gray to trace cream, very fine grained, soft, subangular to subrounded, well sorted, calcareous cement, poorly cemented, trace sparry calcareous, trace disseminated pyrite, possible intergranular porosity, trace dark brown spotty oil stain

15950-16000 SILTY SANDSTONE: light gray to trace cream, very fine grained, soft, subangular to subrounded, well sorted, calcareous cement, poorly cemented, trace sparry calcareous, trace disseminated pyrite, possible intergranular porosity, trace dark brown spotty oil stain

16000-16050 SILTY SANDSTONE: light gray, very fine grained, soft, subangular to subrounded, well sorted, calcareous cement, poorly cemented, trace disseminated pyrite, possible intergranular porosity, trace dark brown spotty oil stain

16050-16100 SILTY SANDSTONE: light gray to rare cream, very fine grained, soft, subangular to subrounded, well sorted, calcareous cement, poorly cemented, rare sparry calcareous, trace nodular pyrite, trace disseminated pyrite, possible intergranular porosity, rare dark brown spotty oil stain

16100-16150 SILTY SANDSTONE: light gray to trace cream, very fine grained, soft to trace friable, subangular to subrounded, well sorted, calcareous cement, poorly to trace moderately cemented, trace sparry calcareous, trace disseminated pyrite, possible intergranular porosity, rare dark brown spotty oil stain

16150-16200 SILTY SANDSTONE: light gray, very fine grained, soft, subangular to subrounded, well sorted, calcareous cement, poorly cemented, trace disseminated pyrite, possible intergranular porosity, rare dark brown spotty oil stain

16200-16250 SILTY SANDSTONE: light gray, very fine grained, soft, subangular to subrounded, well sorted, calcareous cement, poorly cemented, trace nodular pyrite, trace disseminated pyrite, possible intergranular porosity, rare dark brown spotty oil stain

16250-16300 SILTY SANDSTONE: light gray to trace cream, very fine grained, soft, subangular to subrounded, well sorted, calcareous cement, poorly cemented, trace nodular pyrite, trace disseminated pyrite, trace sparry calcareous, possible intergranular porosity, rare dark brown spotty oil stain

16300-16350 SILTY SANDSTONE: light gray to common cream, very fine grained, soft to occasional friable, subangular to subrounded, well sorted, calcareous cement, poorly to occasional moderately cemented, sparry calcareous in part, trace disseminated pyrite, possible intergranular porosity, occasional dark brown spotty oil stain

16350-16400 SILTY SANDSTONE: light gray to rare cream, very fine grained, soft, subangular to subrounded, well sorted, calcareous cement, poorly cemented, sparry calcareous in part, trace disseminated pyrite, possible intergranular porosity, trace dark brown spotty to even oil stain

16400-16450 SILTY SANDSTONE: light gray to rare cream, very fine grained, soft, subangular to subrounded, well sorted, calcareous cement, poorly cemented, sparry calcareous in part, trace disseminated pyrite, possible intergranular porosity, trace dark brown spotty to even oil stain

16450-16500 SILTY SANDSTONE: light gray to rare cream, very fine grained, soft, subangular to subrounded, well sorted, calcareous cement, poorly cemented, sparry calcareous in part, trace disseminated pyrite, possible intergranular porosity, trace dark brown spotty to even oil stain

16500-16550 SILTY SANDSTONE: light gray to rare cream, very fine grained, soft, subangular to subrounded, well sorted, calcareous cement, poorly cemented, sparry calcareous in part, trace disseminated pyrite, possible intergranular porosity, trace dark brown spotty to even oil stain

16550-16600 SILTY SANDSTONE: light gray to rare cream, very fine grained, soft, subangular to subrounded, well sorted, calcareous cement, poorly cemented, sparry calcareous in part, trace disseminated pyrite, possible intergranular porosity, trace dark brown spotty to even oil stain

16600-16650 SILTY SANDSTONE: light gray to rare cream, very fine grained, soft, subangular to subrounded, well sorted, calcareous cement, poorly cemented, sparry calcareous in part, trace disseminated pyrite, possible intergranular porosity, trace dark brown spotty to even oil stain

16650-16700 SILTY SANDSTONE: light gray to rare cream, very fine grained, soft, subangular to subrounded, well sorted, calcareous cement, poorly cemented, sparry calcareous in part, trace disseminated pyrite, possible intergranular porosity, trace dark brown spotty to even oil stain

16700-16750 SILTY SANDSTONE: light gray to rare cream, very fine grained, soft, subangular to subrounded, well sorted, calcareous cement, poorly cemented, sparry calcareous in part, trace disseminated pyrite, possible intergranular porosity, trace dark brown spotty to even oil stain

16750-16800 SILTY SANDSTONE: light gray to rare cream, very fine grained, soft, subangular to subrounded, well sorted, calcareous cement, poorly cemented, sparry calcareous in part, trace disseminated pyrite, possible intergranular porosity, trace dark brown spotty to even oil stain

16800-16850 SILTY SANDSTONE: light gray to rare cream, very fine grained, soft, subangular to subrounded, well sorted, calcareous cement, poorly cemented, sparry calcareous in part, trace disseminated pyrite, possible intergranular porosity, trace dark brown spotty to even oil stain

16850-16900 SILTY SANDSTONE: light gray to rare cream, very fine grained, soft, subangular to subrounded, well sorted, calcareous cement, poorly cemented, sparry calcareous in part, trace disseminated pyrite, possible intergranular porosity, trace dark brown spotty to even oil stain

16900-16950 SILTY SANDSTONE: light gray to rare cream, very fine grained, soft, subangular to subrounded, well sorted, calcareous cement, poorly cemented, sparry calcareous in part, trace disseminated pyrite, possible intergranular porosity, trace dark brown spotty to even oil stain

16950-17000 SILTY SANDSTONE: light gray to rare cream, very fine grained, soft, subangular to subrounded, well sorted, calcareous cement, poorly cemented, sparry calcareous in part, trace disseminated pyrite, possible intergranular porosity, trace dark brown spotty to even oil stain

17000-17050 SILTY SANDSTONE: light gray to rare cream, very fine grained, soft, subangular to subrounded, well sorted, calcareous cement, poorly cemented, sparry calcareous in part, trace disseminated pyrite, possible intergranular porosity, trace dark brown spotty to even oil stain

17050-17100 SILTY SANDSTONE: light gray to rare medium gray, very fine grained, soft, subangular to subrounded, well sorted, calcareous cement, poorly cemented, trace disseminated pyrite, possible intergranular porosity, rare dark brown spotty oil stain

17100-17150 SILTY SANDSTONE: light gray to trace medium gray, very fine grained, soft, subangular to subrounded, well sorted, calcareous cement, poorly cemented, trace disseminated pyrite, possible intergranular porosity, rare dark brown spotty oil stain

17150-17200 SILTY SANDSTONE: light gray to rare medium gray to trace cream, very fine grained, soft, subangular to subrounded, well sorted, calcareous cement, poorly cemented, trace disseminated pyrite, possible intergranular porosity, rare dark brown spotty oil stain

17200-17250 SILTY SANDSTONE: light gray to trace medium gray to trace cream, very fine grained, soft, subangular to subrounded, well sorted, calcareous cement, poorly cemented, trace disseminated pyrite, possible intergranular porosity, occasional dark brown spotty oil stain

17250-17300 SILTY SANDSTONE: light gray to rare cream to trace medium gray, very fine grained, soft to trace friable, subangular to subrounded, well sorted, calcareous cement, poorly to trace moderately cemented, trace disseminated pyrite, trace sparry calcareous, possible intergranular porosity, common dark brown spotty to even oil stain

17300-17350 SILTY SANDSTONE: light gray to rare cream to trace medium gray, very fine grained, soft to trace friable, subangular to subrounded, well sorted, calcareous cement, poorly to trace moderately cemented, trace disseminated pyrite, trace sparry calcareous, possible intergranular porosity, occasional dark brown spotty to even oil stain

17350-17400 SILTY SANDSTONE: light gray to occasional cream, very fine grained, soft, subangular to subrounded, well sorted, calcareous cement, poorly cemented, rare sparry calcareous, trace disseminated pyrite, possible intergranular porosity, common dark brown spotty oil stain

17400-17450 SILTY SANDSTONE: light gray to rare cream, very fine grained, soft to trace friable, subangular to subrounded, well sorted, calcareous cement, poorly to trace moderately cemented, rare sparry calcareous, trace disseminated pyrite, possible intergranular porosity, occasional dark brown spotty to even oil stain

17450-17500 SILTY SANDSTONE: light gray to occasional cream, very fine grained, soft to trace friable, subangular to subrounded, well sorted, calcareous cement, poorly to trace moderately cemented, rare sparry calcareous, trace disseminated pyrite, possible intergranular porosity, common dark brown spotty oil stain

17500-17550 SILTY SANDSTONE: light gray to trace cream, very fine grained, soft to trace friable, subangular to subrounded, well sorted, calcareous cement, poorly to trace moderately cemented, trace sparry calcareous, trace disseminated pyrite, possible intergranular porosity, occasional dark brown spotty oil stain

17550-17600 SILTY SANDSTONE: light gray to trace cream, very fine grained, soft to trace friable, subangular to subrounded, well sorted, calcareous cement, poorly to trace moderately cemented, trace sparry calcareous, trace disseminated pyrite, possible intergranular porosity, occasional dark brown spotty oil stain; trace LIMESTONE: packstone, white to off white, cream to tan, microcrystalline, friable to firm, crystalline texture, common oolites and pellets, possible intercrystalline porosity

17600-17650 SILTY SANDSTONE: light gray to trace cream, very fine grained, soft to trace friable, subangular to subrounded, well sorted, calcareous cement, poorly to trace moderately cemented, trace sparry calcareous, trace disseminated pyrite, possible intergranular porosity, occasional dark brown spotty oil stain; trace LIMESTONE: packstone, white to off white, cream to tan, microcrystalline, friable to firm, crystalline texture, common oolites and pellets, possible intercrystalline porosity

17650-17700 SILTY SANDSTONE: light gray to trace cream, very fine grained, soft to trace friable, subangular to subrounded, well sorted, calcareous cement, poorly to trace moderately cemented, trace sparry calcareous, trace disseminated pyrite, possible intergranular porosity, occasional dark brown spotty oil stain; trace LIMESTONE: packstone, white to off white, cream to tan, microcrystalline, friable to firm, crystalline texture, common oolites and pellets, possible intercrystalline porosity

17700-17750 SILTY SANDSTONE: light gray to trace cream, very fine grained, soft to trace friable, subangular to subrounded, well sorted, calcareous cement, poorly to trace moderately cemented, trace sparry calcareous, trace disseminated pyrite, possible intergranular porosity, occasional dark brown spotty oil stain; trace LIMESTONE: packstone, white to off white, cream to tan, microcrystalline, friable to firm, crystalline texture, common oolites and pellets, possible intercrystalline porosity; LIMESTONE: packstone, white to off white, cream to tan, microcrystalline, friable to firm, crystalline texture, common oolites and pellets, possible intercrystalline porosity

17750-17800 SILTY SANDSTONE: light gray to trace cream, very fine grained, soft to trace friable, subangular to subrounded, well sorted, calcareous cement, poorly to trace moderately cemented, trace sparry calcareous, trace disseminated pyrite, possible intergranular porosity, occasional dark brown spotty oil stain

17800-17850 SILTY SANDSTONE: light gray to trace cream, very fine grained, soft to trace friable, subangular to subrounded, well sorted, calcareous cement, poorly to trace moderately cemented, trace sparry calcareous, trace disseminated pyrite, possible intergranular porosity, occasional dark brown spotty oil stain

17850-17900 SILTY SANDSTONE: light gray to trace cream, very fine grained, soft to trace friable, subangular to subrounded, well sorted, calcareous cement, poorly to trace moderately cemented, trace sparry calcareous, trace disseminated pyrite, possible intergranular porosity, occasional dark brown spotty oil stain

17900-17950 SILTY SANDSTONE: light gray to trace cream, very fine grained, soft to trace friable, subangular to subrounded, well sorted, calcareous cement, poorly to trace moderately cemented, trace sparry calcareous, trace disseminated pyrite, possible intergranular porosity, occasional dark brown spotty oil stain

17950-18000 SILTY SANDSTONE: light gray to trace cream, very fine grained, soft to trace friable, subangular to subrounded, well sorted, calcareous cement, poorly to trace moderately cemented, trace sparry calcareous, trace disseminated pyrite, possible intergranular porosity, occasional dark brown spotty oil stain

18000-18050 SILTY SANDSTONE: light gray to trace cream, very fine grained, soft to trace friable, subangular to subrounded, well sorted, calcareous cement, poorly to trace moderately cemented, trace sparry calcareous, trace disseminated pyrite, possible intergranular porosity, occasional dark brown spotty oil stain

18050-18100 SILTY SANDSTONE: light gray to trace cream, very fine grained, soft to trace friable, subangular to subrounded, well sorted, calcareous cement, poorly to trace moderately cemented, trace sparry calcareous, trace disseminated pyrite, possible intergranular porosity, occasional dark brown spotty oil stain

18100-18150 SILTY SANDSTONE: light gray to trace cream, very fine grained, soft to trace friable, subangular to subrounded, well sorted, calcareous cement, poorly to trace moderately cemented, trace sparry calcareous, trace disseminated pyrite, possible intergranular porosity, occasional dark brown spotty oil stain

18150-18200 SILTY SANDSTONE: light gray to trace cream, very fine grained, soft to trace friable, subangular to subrounded, well sorted, calcareous cement, poorly to trace moderately cemented, trace sparry calcareous, trace disseminated pyrite, possible intergranular porosity, occasional dark brown spotty oil stain

18200-18250 SILTY SANDSTONE: light gray to trace cream, very fine grained, soft, subangular to subrounded, well sorted, calcareous cement, poorly cemented, trace disseminated pyrite, possible intergranular porosity, occasional dark brown spotty oil stain

18250-18300 SILTY SANDSTONE: light gray to trace cream, very fine grained, soft, subangular to subrounded, well sorted, calcareous cement, poorly cemented, trace nodular pyrite, trace disseminated pyrite, possible intergranular porosity, occasional dark brown spotty oil stain

18300-18350 SILTY SANDSTONE: light gray to rare cream, very fine grained, soft, subangular to subrounded, well sorted, calcareous cement, poorly cemented, trace sparry calcareous, trace disseminated pyrite, possible intergranular porosity, occasional dark brown spotty oil stain

18350-18400 SILTY SANDSTONE: light gray to occasional cream, very fine grained, soft to trace brittle, subangular to subrounded, well sorted, calcareous cement, poorly to trace moderately cemented, rare sparry calcareous, trace disseminated pyrite, possible intergranular porosity, occasional dark brown spotty to even oil stain

18400-18450 SILTY SANDSTONE: light gray to common cream, very fine grained, soft, subangular to subrounded, well sorted, calcareous cement, poorly cemented, occasional sparry calcareous, trace disseminated pyrite, possible intergranular porosity, occasional dark brown spotty oil stain

18450-18500 SILTY SANDSTONE: light gray to trace cream, very fine grained, soft to trace friable, subangular to subrounded, well sorted, calcareous cement, poorly to trace moderately cemented, trace sparry calcareous, trace disseminated pyrite, possible intergranular porosity, trace dark brown spotty oil stain

18500-18550 SILTY SANDSTONE: light gray to trace cream, very fine grained, soft to trace friable, subangular to subrounded, well sorted, calcareous cement, poorly to trace moderately cemented, trace sparry calcareous, trace disseminated pyrite, possible intergranular porosity, rare dark brown spotty oil stain

18550-18600 SILTY SANDSTONE: t gray to trace cream, very fine grained, soft, subangular to subrounded, well sorted, calcareous cement, poorly cemented, trace sparry calcareous, trace disseminated pyrite, possible intergranular porosity, occasional dark brown spotty oil stain

18600-18650 SILTY SANDSTONE: t gray to trace cream, very fine grained, soft, subangular to subrounded, well sorted, calcareous cement, poorly cemented, trace sparry calcareous, trace disseminated pyrite, possible intergranular porosity, occasional dark brown spotty oil stain

18650-18700 SILTY SANDSTONE: t gray to trace cream, very fine grained, soft, subangular to subrounded, well sorted, calcareous cement, poorly cemented, trace sparry calcareous, trace disseminated pyrite, possible intergranular porosity, occasional dark brown spotty oil stain

18700-18750 SILTY SANDSTONE: t gray to trace cream, very fine grained, soft, subangular to subrounded, well sorted, calcareous cement, poorly cemented, trace sparry calcareous, trace disseminated pyrite, possible intergranular porosity, occasional dark brown spotty oil stain

18750-18800 SILTY SANDSTONE: t gray to trace cream, very fine grained, soft, subangular to subrounded, well sorted, calcareous cement, poorly cemented, trace sparry calcareous, trace disseminated pyrite, possible intergranular porosity, occasional dark brown spotty oil stain

18800-18850 SILTY SANDSTONE: t gray to trace cream, very fine grained, soft, subangular to subrounded, well sorted, calcareous cement, poorly cemented, trace sparry calcareous, trace disseminated pyrite, possible intergranular porosity, occasional dark brown spotty oil stain

18850-18900 SILTY SANDSTONE: t gray to trace cream, very fine grained, soft, subangular to subrounded, well sorted, calcareous cement, poorly cemented, trace sparry calcareous, trace disseminated pyrite, possible intergranular porosity, occasional dark brown spotty oil stain

18900-18950 SILTY SANDSTONE: t gray to trace cream, very fine grained, soft, subangular to subrounded, well sorted, calcareous cement, poorly cemented, trace sparry calcareous, trace disseminated pyrite, possible intergranular porosity, occasional dark brown spotty oil stain

18950-19000 SILTY SANDSTONE: t gray to trace cream, very fine grained, soft, subangular to subrounded, well sorted, calcareous cement, poorly cemented, trace sparry calcareous, trace disseminated pyrite, possible intergranular porosity, occasional dark brown spotty oil stain

19000-19050 SILTY SANDSTONE: t gray to trace cream, very fine grained, soft, subangular to subrounded, well sorted, calcareous cement, poorly cemented, trace sparry calcareous, trace disseminated pyrite, possible intergranular porosity, occasional dark brown spotty oil stain

19050-19100 SILTY SANDSTONE: t gray to trace cream, very fine grained, soft, subangular to subrounded, well sorted, calcareous cement, poorly cemented, trace sparry calcareous, trace disseminated pyrite, possible intergranular porosity, occasional dark brown spotty oil stain

19100-19150 SILTY SANDSTONE: light gray to occasional cream, very fine grained, soft, subangular to subrounded, well sorted, calcareous cement, poorly cemented, trace disseminated pyrite, possible intergranular porosity, rare dark to light brown spotty oil stain; trace SILTSTONE: medium gray, soft, subblocky to subplaty, calcareous cement, poorly cemented, trace disseminated pyrite, no visible porosity

19150-19200 SILTY SANDSTONE: light gray to rare cream, very fine grained, soft, subangular to subrounded, well sorted, calcareous cement, poorly cemented, trace sparry calcareous, trace disseminated pyrite, possible intergranular porosity, occasional dark to light brown spotty oil stain

19200-19250 SILTY SANDSTONE: light gray to occasional cream, very fine grained, soft to trace brittle, subangular to subrounded, well sorted, calcareous cement, poorly to trace moderately cemented, rare sparry calcareous, trace disseminated pyrite, possible intergranular porosity, rare dark brown spotty oil stain

19250-19300 SILTY SANDSTONE: light gray to occasional cream, very fine grained, soft to trace friable, subangular to subrounded, well sorted, calcareous cement, poorly to trace moderately cemented, occasional sparry calcareous, trace nodular pyrite, trace disseminated pyrite, possible intergranular porosity, occasional dark to light brown spotty oil stain

19300-19350 SILTY SANDSTONE: light gray to trace cream, very fine grained, soft, subangular to subrounded, well sorted, calcareous cement, poorly cemented, trace sparry calcareous, trace nodular pyrite, trace disseminated pyrite, possible intergranular porosity, trace dark to light brown spotty oil stain

19350-19400 SILTY SANDSTONE: light gray to trace cream, very fine grained, soft, subangular to subrounded, well sorted, calcareous cement, poorly cemented, trace disseminated pyrite, possible intergranular porosity, rare dark to light brown spotty oil stain; trace SILTSTONE: medium gray, soft, subblocky to subplatey, calcareous cement, poorly cemented, trace disseminated pyrite, no visible porosity

19400-19450 SILTY SANDSTONE: light gray, very fine grained, soft, subangular to subrounded, well sorted, calcareous cement, poorly cemented, trace disseminated pyrite, possible intergranular porosity, occasional dark brown spotty oil stain; trace SILTSTONE: medium gray, soft, subblocky to subplatey, calcareous cement, poorly cemented, trace disseminated pyrite, no visible porosity

19450-19500 SILTY SANDSTONE: light gray, very fine grained, soft, subangular to subrounded, well sorted, calcareous cement, poorly cemented, trace disseminated pyrite, possible intergranular porosity, occasional dark brown spotty oil stain; trace SILTSTONE: medium gray, soft, subblocky to subplatey, calcareous cement, poorly cemented, trace disseminated pyrite, no visible porosity

19500-19550 SILTY SANDSTONE: light gray, very fine grained, soft, subangular to subrounded, well sorted, calcareous cement, poorly cemented, trace disseminated pyrite, possible intergranular porosity, occasional dark brown spotty oil stain

19550-19600 SILTY SANDSTONE: light gray, very fine grained, soft, subangular to subrounded, well sorted, calcareous cement, poorly cemented, trace disseminated pyrite, possible intergranular porosity, occasional dark brown spotty oil stain

19600-19650 SILTY SANDSTONE: light gray, very fine grained, soft, subangular to subrounded, well sorted, calcareous cement, poorly cemented, trace disseminated pyrite, possible intergranular porosity, occasional dark brown spotty oil stain

19650-19700 SILTY SANDSTONE: light gray, very fine grained, soft, subangular to subrounded, well sorted, calcareous cement, poorly cemented, trace disseminated pyrite, possible intergranular porosity, occasional dark brown spotty oil stain

19700-19750 SILTY SANDSTONE: light gray, very fine grained, soft, subangular to subrounded, well sorted, calcareous cement, poorly cemented, trace disseminated pyrite, possible intergranular porosity, occasional dark brown spotty oil stain

19750-19800 SILTY SANDSTONE: light gray, very fine grained, soft, subangular to subrounded, well sorted, calcareous cement, poorly cemented, trace disseminated pyrite, possible intergranular porosity, occasional dark brown spotty oil stain

19800-19850 SILTY SANDSTONE: light gray, very fine grained, soft, subangular to subrounded, well sorted, calcareous cement, poorly cemented, trace disseminated pyrite, possible intergranular porosity, occasional dark brown spotty oil stain

19850-19900 SILTY SANDSTONE: light gray to trace cream, very fine grained, soft, subangular to subrounded, well sorted, calcareous cement, poorly cemented, trace disseminated pyrite, possible intergranular porosity, trace dark to light brown spotty oil stain

19900-19950 SILTY SANDSTONE: light gray to rare cream, very fine grained, soft to trace friable, subangular to subrounded, well sorted, calcareous cement, poorly to trace moderately cemented, trace disseminated pyrite, trace sparry calcareous, possible intergranular porosity, trace dark to light brown spotty oil stain

19950-20000 SILTY SANDSTONE: light gray to occasional cream, very fine grained, soft, subangular to subrounded, well sorted, calcareous cement, poorly cemented, trace sparry calcareous, trace nodular pyrite, trace disseminated pyrite, possible intergranular porosity, occasional dark to light brown spotty oil stain

20000-20050 SILTY SANDSTONE: light gray to rare cream, very fine grained, soft, subangular to subrounded, well sorted, calcareous cement, poorly cemented, trace sparry calcareous, trace disseminated pyrite, possible intergranular porosity, trace dark brown spotty oil stain

20050-20100 SILTY SANDSTONE: light gray to trace cream, very fine grained, soft, subangular to subrounded, well sorted, calcareous cement, poorly cemented, trace disseminated pyrite, possible intergranular porosity, occasional dark brown spotty oil stain

20100-20150 SILTY SANDSTONE: light gray to trace cream, very fine grained, soft, subangular to subrounded, well sorted, calcareous cement, poorly cemented, trace disseminated pyrite, possible intergranular porosity, occasional dark brown spotty oil stain

20150-20200 SILTY SANDSTONE: light gray to trace cream, very fine grained, soft, subangular to subrounded, well sorted, calcareous cement, poorly cemented, trace disseminated pyrite, possible intergranular porosity, occasional dark brown spotty oil stain

20200-20250 SILTY SANDSTONE: light gray to trace cream, very fine grained, soft, subangular to subrounded, well sorted, calcareous cement, poorly cemented, trace disseminated pyrite, possible intergranular porosity, occasional dark brown spotty oil stain

20250-20300 SILTY SANDSTONE: light gray to trace cream, very fine grained, soft, subangular to subrounded, well sorted, calcareous cement, poorly cemented, trace disseminated pyrite, possible intergranular porosity, occasional dark brown spotty oil stain

20300-20350 SILTY SANDSTONE: light gray to trace cream, very fine grained, soft, subangular to subrounded, well sorted, calcareous cement, poorly cemented, trace disseminated pyrite, possible intergranular porosity, occasional dark brown spotty oil stain

20350-20400 SILTY SANDSTONE: light gray to trace cream, very fine grained, soft, subangular to subrounded, well sorted, calcareous cement, poorly cemented, trace disseminated pyrite, possible intergranular porosity, occasional dark brown spotty oil stain

20400-20450 SILTY SANDSTONE: light gray to trace cream, very fine grained, soft, subangular to subrounded, well sorted, calcareous cement, poorly cemented, trace disseminated pyrite, possible intergranular porosity, occasional dark brown spotty oil stain

20450-20500 SILTY SANDSTONE: light gray to trace cream, very fine grained, soft, subangular to subrounded, well sorted, calcareous cement, poorly cemented, trace disseminated pyrite, possible intergranular porosity, occasional dark brown spotty oil stain

20500-20550 SILTY SANDSTONE: light gray to trace cream, very fine grained, soft, subangular to subrounded, well sorted, calcareous cement, poorly cemented, trace disseminated pyrite, possible intergranular porosity, occasional dark brown spotty oil stain

20550-20600 SILTY SANDSTONE: light gray to trace cream, very fine grained, soft, subangular to subrounded, well sorted, calcareous cement, poorly cemented, trace disseminated pyrite, possible intergranular porosity, occasional dark brown spotty oil stain

20600-20650 SILTY SANDSTONE: light gray to trace cream, very fine grained, soft, subangular to subrounded, well sorted, calcareous cement, poorly cemented, trace nodular pyrite, trace disseminated pyrite, possible intergranular porosity, common dark brown spotty oil stain

20650-20700 SILTY SANDSTONE: light gray to trace cream, very fine grained, soft, subangular to subrounded, well sorted, calcareous cement, trace nodular pyrite, trace disseminated pyrite, possible intergranular porosity, occasional dark to light brown spotty oil stain

20700-20730 SILTY SANDSTONE: light gray to trace cream, very fine grained, soft, subangular to subrounded, well sorted, calcareous cement, trace nodular pyrite, trace disseminated pyrite, possible intergranular porosity, occasional dark to light brown spotty oil stain



SUNDRY NOTICES AND REPORTS ON WELLS - FORM 4

INDUSTRIAL COMMISSION OF NORTH DAKOTA
OIL AND GAS DIVISION
600 EAST BOULEVARD DEPT 405
BISMARCK, ND 58505-0840
SFN 5749 (09-2006)

Well File No.
22247



PLEASE READ INSTRUCTIONS BEFORE FILLING OUT FORM.
PLEASE SUBMIT THE ORIGINAL AND ONE COPY.

Notice of Intent

Approximate Start Date

Report of Work Done

Date Work Completed

Notice of Intent to Begin a Workover Project that may Qualify
for a Tax Exemption Pursuant to NDCC Section 57-51.1-03.

Approximate Start Date

Drilling Prognosis

Spill Report

Redrilling or Repair

Shooting

Casing or Liner

Acidizing

Plug Well

Fracture Treatment

Supplemental History

Change Production Method

Temporarily Abandon

Reclamation

Other

OH Logging Waiver

Well Name and Number
MAGNUM #1-36-25H

Footages	Qtr-Qtr	Section	Township	Range
250 F S L 815 F WL	SWSW	36	153 N	101 W
Field Baker	Pool Bakken		County McKenzie	

24-HOUR PRODUCTION RATE

Before		After	
Oil	Bbls	Oil	Bbls
Water	Bbls	Water	Bbls
Gas	MCF	Gas	MCF

Name of Contractor(s)

none

Address

City

State

Zip Code

DETAILS OF WORK

Slawson Exploration Company, Inc. (SECI) respectfully requests an open hole logging waiver for the Magnum #1-36-25H well. It is located less than one mile from the Lindvig 1-35 well (8882), which was drilled by Texas Gas Exploration Corp. and logs were completed. Geologic control for the Magnum #1-36-25H will be achieved utilizing mudlogs and the gamma ray log from the MWD tool to be run in this well. A CBL/GR log will also be run from the KOP to 100' above TOC and to the surface with the GR.

Company Slawson Exploration Company, Inc.	Telephone Number (720) 457-9821	
Address 1675 Broadway, Suite 1600		
City Denver	State CO	Zip Code 80202
Signature 	Printed Name Khem Suthiwan	
Title Permitting Manager	Date February 14, 2012	
Email Address ksuthiwan@slawsoncompanies.com		

FOR STATE USE ONLY

<input type="checkbox"/> Received	<input checked="" type="checkbox"/> Approved
Date 2-14-2012	
By 	
Title Richard A. Suggs Geologist	



Oil and Gas Division

Lynn D. Helms - Director Bruce E. Hicks - Assistant Director

Bruce E. Hicks - Assistant Director

Department of Mineral Resources

Lynn D. Helms - Director

North Dakota Industrial Commission

www.oilgas.nd.gov

BOB BOGLE Date: 1/19/2012
SLAWSON EXPLORATION COMPANY, INC.
1675 BROADWAY SUITE 1600
DENVER, CO 80202 USA

RE: CORES AND SAMPLES

Well Name: MAGNUM 1-36-25H **Well File No.:** 22247
Location: SWSW 36-153-101 **County:** MCKENZIE
Permit Type: Development - HORIZONTAL
Field: BAKER **Target Horizon:** BAKKEN

Dear BOB BOGLE:

North Dakota Century Code (NDCC) Section 38-08-04 provides for the preservation of cores and samples and their shipment to the State Geologist when requested. The following is required on the above referenced well:

- 1) All cores, core chips and samples must be submitted to the State Geologist as provided for the NDCC Section 38-08-04 and North Dakota Administrative Code 43-02-03-38.1.
 - 2) Samples shall include all cuttings from:

Base of the Last Charles Salt

Samples of cuttings shall be taken at 30' maximum intervals through all vertical, build and horizontal sections. Samples must be washed, dried, packed in sample envelopes in correct order with labels showing operator, well name, location and depth, and forwarded in standard boxes to the State Geologist within 30 days of the completion of drilling operations.

- 3) Cores: ALL CORES cut shall be preserved in correct order, properly boxed, and forwarded to the State Geologist within 90 days of completion of drilling operations. Any extension of time must have written approval from the State Geologist.
 - 4) All cores, core chips, and samples must be shipped, prepaid, to the State Geologist at the following address:

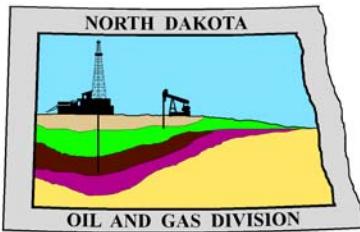
**ND Geological Survey Core Library
Campus Road and Cornell
Grand Forks, ND 58202**

- 5) NDCC Section 38-08-16 allows for a civil penalty for any violation of Chapter 38 08 not to exceed \$12,500 for each offense, and each day's violation is a separate offense.

Sincerely



Richard A. Suggs
Geologist



Oil and Gas Division

Lynn D. Helms - Director Bruce E. Hicks - Assistant Director
Department of Mineral Resources
Lynn D. Helms - Director
North Dakota Industrial Commission
www.oilgas.nd.gov

January 13, 2012

Khem Suthiwan
Permitting Manager
SLAWSON EXPLORATION COMPANY, INC.
1675 Broadway, Suite 1600
Denver, CO 80202

**RE: HORIZONTAL WELL
MAGNUM 1-36-25H
SWSW Section 36-153N-101W
McKenzie County
Well File # 22247**

Dear Khem :

Pursuant to Commission Order No. 18012, approval to drill the above captioned well is hereby given. The approval is granted on the condition that all portions of the well bore not isolated by cement, be no closer than the **200' setback** from the north & south boundaries and **1220' setback** (per Commission policy) from the east & west boundaries within the 1280 acre spacing unit consisting of All of Sections 25 & 36 T153N R101W.

PERMIT STIPULATIONS: LOCATION PERIMETER DIKE REQUIRED. ALSO, IN ORDER TO JUSTIFY THE SPACING UNIT, THE MAGNUM 1-36-25H & MAGNUM 2-36-25H MUST BE DRILLED BACK TO BACK. ALTERNATIVELY, SLAWSON MUST DRILL THE MAGNUM 1-36-25H IF ONLY ONE WELL IS DRILLED IN THE SPACING UNIT INITIALLY. LASTLY, SLAWSON MUST CONTACT MARK BINNS AT 701-220-5989 PRIOR TO LOCATION CONSTRUCTION.

Form 1 Changes & Hard Lines

Any changes, shortening of casing point or lengthening at Total Depth must have prior approval by the NDIC. The proposed directional plan is at a legal location. The minimum legal coordinate from the well head at casing point is: 405E. Also, based on the azimuth of the proposed lateral the maximum legal coordinate from the well head is: 10083N & 405E.

Location Construction Commencement (Three Day Waiting Period)

Operators shall not commence operations on a drill site until the 3rd business day following publication of the approved drilling permit on the NDIC - OGD Daily Activity Report. If circumstances require operations to commence before the 3rd business day following publication on the Daily Activity Report, the waiting period may be waived by the Director. Application for a waiver must be by sworn affidavit providing the information necessary to evaluate the extenuating circumstances, the factors of NDAC 43-02-03-16.2 (1), (a)-(f), and any other information that would allow the Director to conclude that in the event another owner seeks revocation of the drilling permit, the applicant should retain the permit.

Permit Fee & Notification

Payment was received in the amount of \$100 via credit card. It is requested that notification be given immediately upon the spudding of the well. This information should be relayed to the Oil & Gas Division, Bismarck, via telephone. The following information must be included: Well name, legal location, permit number, drilling contractor, company representative, date and time of spudding. Office hours are 8:00 a.m. to 12:00 p.m. and 1:00 p.m. to 5:00 p.m. Central Time. Our telephone number is (701) 328-8020, leave a message if after hours

Khem Suthiwan
January 13, 2012
Page 2

Survey Requirements for Horizontal, Horizontal Re-entry, and Directional Wells

NDAC Section 43-02-03-25 (Deviation Tests and Directional Surveys) states in part (that) the survey contractor shall file a certified copy of all surveys with the director free of charge within thirty days of completion. Surveys must be submitted as one electronic copy, or in a form approved by the director. However, the director may require the directional survey to be filed immediately after completion if the survey is needed to conduct the operation of the director's office in a timely manner. Certified surveys must be submitted via email in one adobe document, with a certification cover page to certsurvey@nd.gov.

Survey points shall be of such frequency to accurately determine the entire location of the well bore.

Confidential status

Your request for confidential status of all information furnished to the Director, or his representatives, is hereby granted. Such information, except production runs, shall remain confidential for six months commencing on the date the well is spud.

Confidential status notwithstanding, the Director and his representatives shall have access to all well records wherever located. Your company personnel, or any person performing work for your company shall permit the Director and his representatives to come upon any lease, property, well, or drilling rig operated or controlled by them, complying with all safety rules, and to inspect the records and operation of such wells and to have access at all times to any and all records of wells. The Commission's field personnel periodically inspect producing and drilling wells. Any information regarding such wells shall be made available to them at any time upon request. The information so obtained by the field personnel shall be maintained in strict confidence and shall be available only to the Commission and its staff.

Drilling pit

Please be advised approval for use of a drilling reserve pit or drill cuttings pit on this site is contingent on site specific conditions and special pit closure requirements may apply.

Surface casing cement

Tail cement utilized on surface casing must have a minimum compressive strength of 500 psi within 12 hours, and tail cement utilized on production casing must have a minimum compressive strength of 500 psi before drilling the plug or initiating tests.

Logs

NDAC Section 43-02-03-31 requires the running of a Cement Bond Log from which the presence of cement can be determined in every well in which production or intermediate casing has been set and a Gamma Ray Log must be run from total depth to ground level elevation of the well bore. All logs must be submitted as one paper copy and one digital copy in LAS (Log ASCII) format, or a format approved by the Director. Image logs that include, but are not limited to, Mud Logs, Cement Bond Logs, and Cyberlook Logs, cannot be produced in their entirety as LAS (Log ASCII) files. To create a solution and establish a standard format for industry to follow when submitting image logs, the Director has given approval for the operator to submit an image log as a TIFF (*.tif) formatted file. The TIFF (*.tif) format will be accepted only when the log cannot be produced in its entirety as a LAS (Log ASCII) file format. The digital copy may be submitted on a standard CD, or attached to an email sent to digitallogs@nd.gov. Thank you for your cooperation.

Sincerely,

Todd L. Holweger
Mineral Resources Permit Manager



APPLICATION FOR PERMIT TO DRILL HORIZONTAL WELL - FORM 1H

INDUSTRIAL COMMISSION OF NORTH DAKOTA
OIL AND GAS DIVISION
600 EAST BOULEVARD DEPT 405
BISMARCK, ND 58505-0840
SFN 54269 (08-2005)

PLEASE READ INSTRUCTIONS BEFORE FILLING OUT FORM.

PLEASE SUBMIT THE ORIGINAL AND ONE COPY.

Type of Work New Location	Type of Well Oil & Gas	Approximate Date Work Will Start 09 / 01 / 2011	Confidential Status Yes
Operator SLAWSON EXPLORATION COMPANY, INC.		Telephone Number 720-457-9821	
Address 1675 Broadway, Suite 1600		City Denver	State CO Zip Code 80202

Notice has been provided to the owner of any permanently occupied dwelling within 1,320 feet.

This well is not located within five hundred feet of an occupied dwelling.

WELL INFORMATION (If more than one lateral proposed, enter data for additional laterals on page 2)

Well Name MAGNUM			Well Number 1-36-25H			
Surface Footages 250 F S L 815 F W L		Qtr-Qtr SWSW	Section 36	Township 153 N	Range 101 W	County McKenzie
Longstring Casing Point Footages 1140 F S L 1230 F W L		Qtr-Qtr SESW	Section 36	Township 153 N	Range 101 W	County McKenzie
Longstring Casing Point Coordinates From Well Head 890 N From WH 415 E From WH		Azimuth 25 °	Longstring Total Depth 11566 Feet MD 10789 Feet TVD			
Bottom Hole Footages From Nearest Section Line 250 F N L 1382 F W L		Qtr-Qtr NENW	Section 25	Township 153 N	Range 101 W	County McKenzie
Bottom Hole Coordinates From Well Head 10050 N From WH 567 E From WH		KOP Lateral 1 10312 Feet MD	Azimuth Lateral 1 0 °	Estimated Total Depth Lateral 1 20749 Feet MD 10789 Feet TVD		
Latitude of Well Head 48 ° 01 ' 30.33 "		Longitude of Well Head -103 ° 37 ' 20.35 "	NAD Reference NAD83	Description of Spacing Unit: All of Sec. 25 & 36 T153N R101W (Subject to NDIC Approval)		
Ground Elevation 2191 Feet Above S.L.		Acres in Spacing/Drilling Unit 1280	Spacing/Drilling Unit Setback Requirement 200 Feet N/S 1220 Feet E/W		Industrial Commission Order 18012	
North Line of Spacing/Drilling Unit 5268 Feet		South Line of Spacing/Drilling Unit 5251 Feet	East Line of Spacing/Drilling Unit 10488 Feet		West Line of Spacing/Drilling Unit 10548 Feet	
Objective Horizons Bakken						Pierre Shale Top 2061
Proposed Surface Casing	Size 9 - 5/8 "	Weight 36 Lb./Ft.	Depth 2161 Feet	Cement Volume 668 Sacks	NOTE: Surface hole must be drilled with fresh water and surface casing must be cemented back to surface.	
Proposed Longstring Casing	Size 7 - 0 "	Weight(s) 29 & 32 Lb./Ft.	Longstring Total Depth 11566 Feet MD 10789 Feet TVD		Cement Volume 651 Sacks	Cement Top 4914 Feet
Base Last Charles Salt (If Applicable) 9165 Feet		NOTE: Intermediate or longstring casing string must be cemented above the top Dakota Group Sand.				
Proposed Logs Triple Combo - DIL, CNL, CDL with GR to surface CBL/GR/CCL						
Drilling Mud Type (Vertical Hole - Below Surface Casing) Invert			Drilling Mud Type (Lateral) Other - See Comments			
Survey Type in Vertical Portion of Well MWD Every 100 Feet		Survey Frequency: Build Section 30 Feet		Survey Frequency: Lateral 90 Feet		Survey Contractor Directional Drilling Co.

NOTE: A Gamma Ray log must be run to ground surface and a CBL must be run on intermediate or longstring casing string if set.

Surveys are required at least every 30 feet in the build section and every 90 feet in the lateral section of a horizontal well. Measurement inaccuracies are not considered when determining compliance with the spacing/drilling unit boundary setback requirement except in the following scenarios: 1) When the angle between the well bore and the respective boundary is 10 degrees or less; or 2) If Industry standard methods and equipment are not utilized. Consult the applicable field order for exceptions.

If measurement inaccuracies are required to be considered, a 2° MWD measurement inaccuracy will be applied to the horizontal portion of the well bore. This measurement inaccuracy is applied to the well bore from KOP to TD.

REQUIRED ATTACHMENTS: Certified surveyor's plat, horizontal section plat, estimated geological tops, proposed mud/cementing plan, directional plot/plan, \$100 fee.

See Page 2 for Comments section and signature block.

COMMENTS, ADDITIONAL INFORMATION, AND/OR LIST OF ATTACHMENTS

No occupied dwelling within 1,320 ft. Lateral will be drilled with CaCl water unless pressure is encountered, then will switch to 80/20 invert mud. KB @ 2,211'. Certified surveyors well location plat, horizontal sections, pad layout, pad x-sections, topo map, proposed directional survey & plots, and drilling program will be emailed. Slawson plans on drilling the proposed Magnum 1-36-25H well first and then the Magnum 2-36-25H thereafter.

Lateral 2

KOP Lateral 2 Feet MD	Azimuth Lateral 2 °	Estimated Total Depth Lateral 2 Feet MD Feet TVD			KOP Coordinates From Well Head From WH From WH		
Formation Entry Point Coordinates From Well Head From WH From WH		Bottom Hole Coordinates From Well Head From WH From WH					
KOP Footages From Nearest Section Line F L		Qtr-Qtr	Section	Township N	Range W	County	
Bottom Hole Footages From Nearest Section Line F L		Qtr-Qtr	Section	Township N	Range W	County	

Lateral 3

KOP Lateral 3 Feet MD	Azimuth Lateral 3 °	Estimated Total Depth Lateral 3 Feet MD Feet TVD			KOP Coordinates From Well Head From WH From WH		
Formation Entry Point Coordinates From Well Head From WH From WH		Bottom Hole Coordinates From Well Head From WH From WH					
KOP Footages From Nearest Section Line F L		Qtr-Qtr	Section	Township N	Range W	County	
Bottom Hole Footages From Nearest Section Line F L		Qtr-Qtr	Section	Township N	Range W	County	

Lateral 4

KOP Lateral 4 Feet MD	Azimuth Lateral 4 °	Estimated Total Depth Lateral 4 Feet MD Feet TVD			KOP Coordinates From Well Head From WH From WH		
Formation Entry Point Coordinates From Well Head From WH From WH		Bottom Hole Coordinates From Well Head From WH From WH					
KOP Footages From Nearest Section Line F L		Qtr-Qtr	Section	Township N	Range W	County	
Bottom Hole Footages From Nearest Section Line F L		Qtr-Qtr	Section	Township N	Range W	County	

Lateral 5

KOP Lateral 5 Feet MD	Azimuth Lateral 5 °	Estimated Total Depth Lateral 5 Feet MD Feet TVD			KOP Coordinates From Well Head From WH From WH		
Formation Entry Point Coordinates From Well Head From WH From WH		Bottom Hole Coordinates From Well Head From WH From WH					
KOP Footages From Nearest Section Line F L		Qtr-Qtr	Section	Township N	Range W	County	
Bottom Hole Footages From Nearest Section Line F L		Qtr-Qtr	Section	Township N	Range W	County	

I hereby swear or affirm the information provided is true, complete and correct as determined from all available records.

Date

1 / 12 / 2012

ePermit

Printed Name
Khem Suthiwan

Title

Permitting Manager**FOR STATE USE ONLY**

Permit and File Number 22247	API Number 33 - 053 - 03943
Field BAKER	
Pool BAKKEN	Permit Type DEVELOPMENT

FOR STATE USE ONLY

Date Approved 1 / 13 / 2012
By Todd L. Holweger
Title Mineral Resources Permit Manager

WELL LOCATION PLAT

Slawson Exploration Company, Inc.
1675 Broadway, Suite 1600 Denver, Colorado 80202

Magnum 1-36-25H

250 feet from the south line and 815 feet from the west line (surface location)

Section 36, T. 153 N., R. 101 W., 5th P.M.

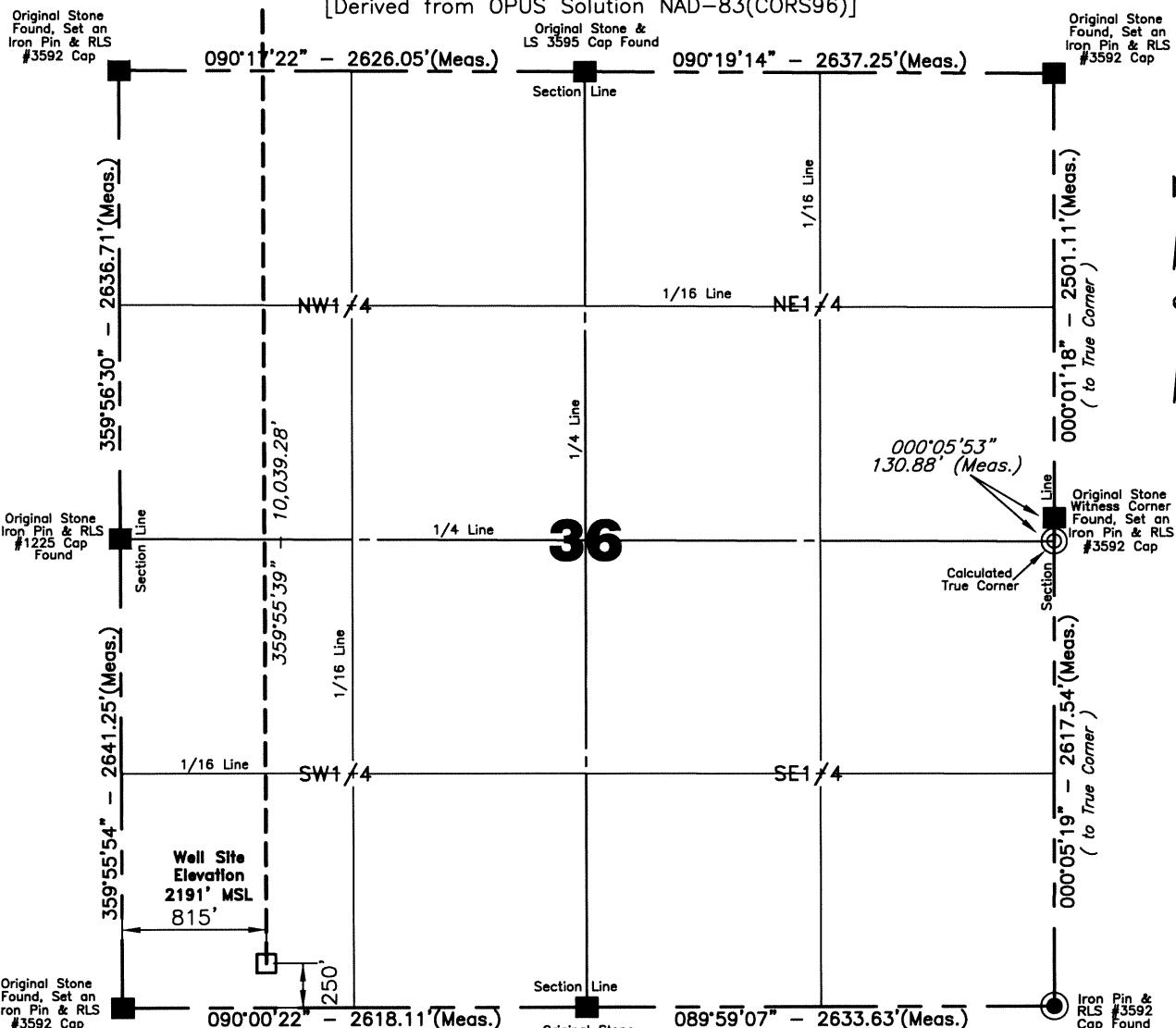
250 feet from the north line and 815 feet from the west line (bottom hole location)

Section 25, T. 153 N., R. 101 W., 5th P.M.

McKenzie County, North Dakota

Surface owner @ well site – Verlin L. Fossum

Latitude 48°01'30.33" North; Longitude 103°37'20.35" West (surface location)
Latitude 48°03'09.39" North; Longitude 103°37'20.48" West (bottom hole location)
[Derived from OPUS Solution NAD-83(CORS96)]



Confidentiality Notice: The information contained on this plot is legally privileged and confidential information intended only for the use of recipients. If you are not the intended recipients, you are hereby notified that any use, dissemination, distribution or copying of this information is strictly prohibited.

NOTE: All land corners are assumed unless otherwise noted.
The well location shown hereon is not an as-built location.

Scale 1"=1000' I, Rick Leach, Professional Land Surveyor, N.D. No. 3496, do hereby certify that the survey plat shown hereon was made by me, or under my direction, from notes made in the field, and the same is true and correct to the best of my knowledge and belief.

Greg Holkesvig

12/16/2010

Surveyed By

Date

Revised: 8/8/2011

Vertical Control Datum Used

Sea-Level Datum of NAVD 88

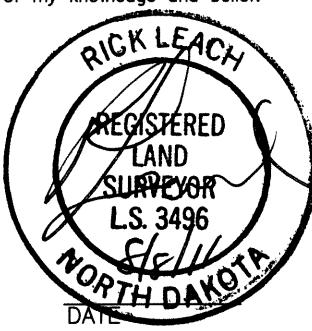
Based on elevation derived from OPUS Solution on GPS*KLJ (aluminum cap) Located a distance of 1995.55' on an azimuth of 270°27'01" from the NW corner of Section 25 T.153N., R.101W., 5th P.M. being at 2059.68' Elevation MSL.

Project No. 3709493

Book Minot OW-#29 Pg. 5-7 Staking

Professional Consulting Engineers
and Surveyors

Registered in
North Dakota, South Dakota
Montana, Wyoming & Minnesota
Tele-Fax No. 701-483-2795
Bus. Phone No. 701-483-1284
P.O. Box 290
677 27th Ave. E.
Dickinson, North Dakota 58602
Certificate of Authorization #C-061



Kadrmas
Lee &
Jackson
Engineers Surveyors
Planners

1675 Broadway, Ste. 1600
Denver, Co. 80202



Phone # 303-592-8880
Fax: 303-592-8881
Log Fax:

GENERAL WELL INFORMATION

LEASE NAME AND NUMBER

GL:	2,191'	FOOTAGE CALLS - SURFACE HOLE	250' FSL	815' FWL
KB:	2,211'	SURFACE HOLE LOCATION	SWSW	36, 153N, 101W
PROPOSED TVD	10,789'	BOTTOM HOLE LOCATION	NENW	25, 153N, 101W
PROPOSED TMD	20,749'	LATITUDE	48° 01' 30.35" N	
LATERAL LENGTH (FT.)	9,183'	LONGITUDE	103° 37' 20.35" W	
FIELD	Wildcat	COUNTY/STATE	McKenzie CO, ND	

DIRECTIONS TO WELL:

Magnum 1-36-25H - single-lateral Bakken producer with stage-frac completion

ESTIMATED TOPS	SUBSEA	TVD	ESTIMATED TOPS	SUBSEA	TVD
Pierre/base Foxhills	150'	2,061'	Charles	-6,266'	8,477'
Dakota (marine)	-3,203'	5,414'	base last Charles salt	-7,074'	9,285'
Dunham Salt	-4,565'	6,776'	Mission Canyon	-7,266'	9,477'
Base Dunham Salt	-4,583'	6,794'	Lodgepole	-7,836'	10,047'
Pine Salt	-4,836'	7,047'	Upper Bakken shale	-8,556'	10,767'
Base Pine Salt	-4,870'	7,081'	Top of Target	-8,571'	10,782'
Opeche	-4,895'	7,106'	Target	-8,578'	10,789'
Minnelussa	-5,100'	7,311'	Base of Target	-8,585'	10,796'
Kibbey Lime	-6,119'	8,330'			
MUD PROGRAM	Type	Viscosity	Weight	Fluid Loss	LCM
Start at (ft.)	Change at (ft.)				
0	2,161'	(Through Surface Casing Depth)	fresh water	28-32	8.34
2,161'	7" csg point		80/20 invert	45-50	9.6-10.5
7" csg point	Total MD		Brine	9.2-10.2	NC
If overpressured			80/20 invert	28	11.5 - 13
Maximum anticipated bottom hole pressure is 4,672#; BOPs to be tested to 5000ps					

LOGGING PROGRAM

Open Hole Triple Combo - DIL,CNL,CDL
Cased Hole CBL/GR/CCL

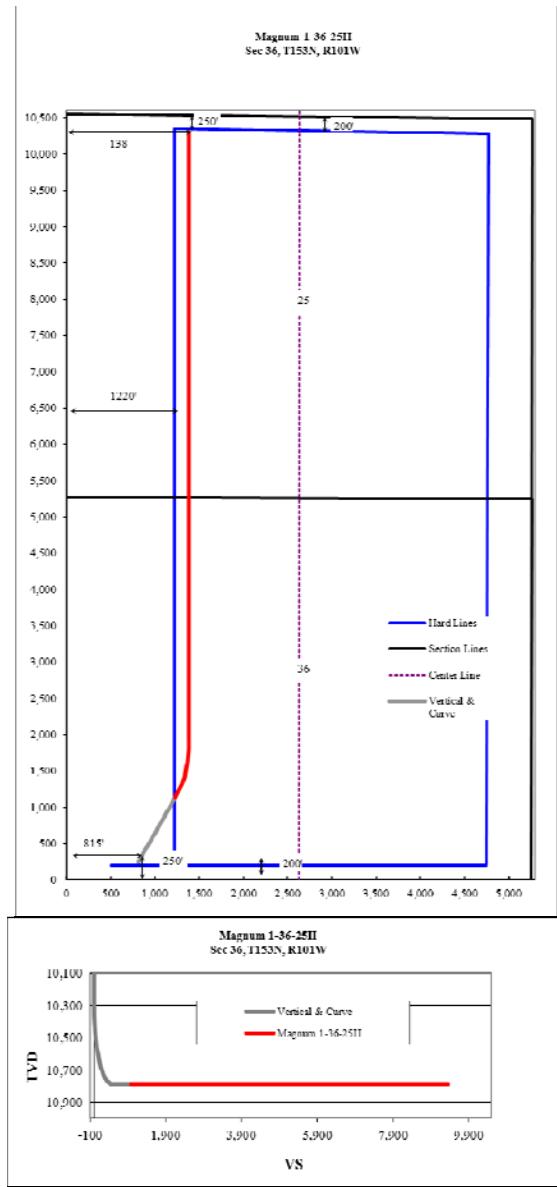
BIT PROGRAM	CASING PROGRAM									
	Hole Size	Casing	Bit Type	Model	Manufacturer	SURFACE CASING:	start	end	footage	
13-1/2"	9 ⁵ / ₈ "	Roller-Cone			Retip	9-5/8"	36#	K55	' 2,161'	
8-3/4" Vertical	7"	PDC	655ZX		SEC				'	
8-3/4" Curve	7"	PDC	3641		SEC	PRODUCTION CASING:	start	end	footage	
6"	4 ¹ / ₂ "	PDC	643		SEC	7"	29#	P-110	' 6,626'	
DIRECTIONAL PROGRAM						7"	32#	P-110	6,626' 9,439' 2,813'	
KOP						7"	29#	P-110	9,439' 11,566' 2,127'	
Build rate										
Lateral length, (ft.)	9,183'									
Azimuth	25.°					Total 29#	8,753'	Total 32#	2,813' 11,566'	
Target zone top (TVD)	10,782'					LINER LENGTH:	start	end	Length	
Landing point (TVD)	10,789'					4-1/2"	11.6#	P-110	10,312' 20,749' 10,417'	
Target zone bottom (TVD)	10,796'					Mech Packer assembly on 4-1/2" liner - Packer depths to be provided at TD. The sleeves and packers will be provided when run.				
Total MD	20,749'									

***** SEE ATTACHED DIRECTIONAL PLAN

CEMENT PROGRAM	Size	Instructions						
SURFACE CASING	9 ⁵ / ₈ "	Cement to surface with 406 SX "G" and 262 SX "G" tail; 1,690 cu.ft. total						
Use 60% excess								
PRODUCTION CASING	7"	Cement w/ 286 sx lite Pozmix (Yield: 2.56 ft3/sx) lead and 365 sx Class G (Yield: 1.65 ft3/sx) tail. Calculated cement top 500' above Dakota. Lead coverage from 500' above Dakota to 150' above Charles, Tail coverage from 150' above Charles to 7" shoe.						
Use 30% excess and a 9" hole								
See Drilling Procedure for Float Equipment								
Recommendation								

SLAWSON CONTACT INFORMATION

Engineering:	Office	Home	Cell				
Mark McCallister	720-897-8758	303-730-9979	303-748-1602				
Matt Houston	720-897-8759	512-944-5528	512-944-5528				
Geology:							
Bob Bogle	720-897-8756	303-773-1706	303-523-5607				



The SHL is 250' FSL & 815' FWL (SWSW), Section 36, T153N, R101W, McKenzie County, ND. The state setbacks are 500' from the east and west section lines and 200' from the north and south section lines.

7" Casing: 8-3/4" hole: KOP at 10,312'. Build curve at **12°/100'** to 90° inclination at 11,062' MD (**10,789' TVD**) at an azimuth of 25.00°. Drill a tangent at a 25.00° azimuth and a 90° inclination across the hardline. Set 7" casing (1,140' FSL & 1,230' FWL, SESW, Section 36, T153N, R101W).

Lateral: Drill out of 7" casing shoe and decrease azimuth to 360° at 3°/100/' to 12,366' MD. Drill a 6" horizontal well holding to an azimuth of 360.00° to TD at a depth of 20,749' MD (**10,789' TVD**), 250' FNL & 1,382' FWL (NENW) Section 36, T153N , R101W. Expect an inclination of 90.00°. Total 6" lateral is 9,182'.

Magnum 1-36-25H

KB = 2,211' KOP = 10,312' Target = 10,343' TVD

Based on True North

MD	Incl.	Azi.	TVD	North	East	DLS	Vertical Section	UTM N	UTM E
0.00	0.00	25.00	0.00	0.00	0.00	0.00	0.00	250.00	815.00
10,300.00	0.00	25.00	10,300.00	0.00	0.00	0.00	0.00	250.00	815.00
10,311.50	0.00	25.00	10,311.50	0.00	0.00	0.00	0.00	250.00	815.00 KOP
10,361.50	6.00	25.00	10,361.36	2.37	1.10	12.00	2.61	252.37	816.10
10,411.50	12.00	25.00	10,410.68	9.45	4.40	12.00	10.42	259.45	819.40
10,461.50	18.00	25.00	10,458.91	21.16	9.86	12.00	23.34	271.16	824.86
10,511.50	24.00	25.00	10,505.53	37.38	17.42	12.00	41.24	287.38	832.42
10,561.50	30.00	25.00	10,550.02	57.92	27.00	12.00	63.90	307.92	842.00
10,611.50	36.00	25.00	10,591.90	82.57	38.49	12.00	91.10	332.57	853.49
10,661.50	42.00	25.00	10,630.70	111.05	51.77	12.00	122.52	361.05	866.77
10,711.50	48.00	25.00	10,666.01	143.05	66.69	12.00	157.83	393.05	881.69
10,761.50	54.00	25.00	10,697.43	178.22	83.09	12.00	196.64	428.22	898.09
10,811.50	60.00	25.00	10,724.62	216.17	100.79	12.00	238.51	466.17	915.79
10,861.50	66.00	25.00	10,747.29	256.49	119.59	12.00	283.00	506.49	934.59
10,911.50	72.00	25.00	10,765.18	298.74	139.29	12.00	329.62	548.74	954.29
10,961.50	78.00	25.00	10,778.10	342.45	159.67	12.00	377.84	592.45	974.67
11,011.50	84.00	25.00	10,785.91	387.15	180.51	12.00	427.16	637.15	995.51
11,061.50	90.00	25.00	10,788.52	432.34	201.58	12.00	477.02	682.34	1,016.58
11,111.50	90.00	25.00	10,788.52	477.66	222.71	0.00	527.03	727.66	1,037.71
11,161.50	90.00	25.00	10,788.52	522.98	243.84	0.00	577.03	772.98	1,058.84
11,211.50	90.00	25.00	10,788.52	568.30	264.97	0.00	627.04	818.30	1,079.97
11,261.50	90.00	25.00	10,788.52	613.62	286.10	0.00	677.04	863.62	1,101.10
11,311.50	90.00	25.00	10,788.52	658.94	307.23	0.00	727.04	908.94	1,122.23
11,361.50	90.00	25.00	10,788.52	704.26	328.36	0.00	777.05	954.26	1,143.36
11,411.50	90.00	25.00	10,788.52	749.58	349.49	0.00	827.05	999.58	1,164.49
11,461.50	90.00	25.00	10,788.52	794.90	370.62	0.00	877.05	1,044.90	1,185.62
11,511.50	90.00	25.00	10,788.52	840.22	391.75	0.00	927.06	1,090.22	1,206.75
11,561.50	90.00	25.00	10,788.52	885.54	412.88	0.00	977.06	1,135.54	1,227.88
11,565.97	90.00	25.00	10,788.52	889.59	414.77	0.00	981.53	1,139.59	1,229.77 EOC, 7" Csg

Magnum 1-36-25H

11,565.97	90.00	25.00	10,788.52	889.59	414.77	0.00	981.53	1,139.59	1,229.77 EOC, 7" Csg
11,665.97	90.00	22.00	10,788.52	981.26	454.63	3.00	1,081.46	1,231.26	1,269.63
11,765.97	90.00	19.00	10,788.52	1,074.90	489.64	3.00	1,181.12	1,324.90	1,304.64
11,765.97	90.00	16.00	10,788.52	1,074.90	489.64	3.00	1,181.12	1,324.90	1,304.64
11,865.97	90.00	13.00	10,788.52	1,170.89	517.17	3.00	1,279.75	1,420.89	1,332.17
11,965.97	90.00	10.00	10,788.52	1,268.85	537.10	3.00	1,376.96	1,518.85	1,352.10
12,065.97	90.00	7.00	10,788.52	1,367.72	551.88	3.00	1,472.81	1,617.72	1,366.88
12,165.97	90.00	4.00	10,788.52	1,467.23	561.46	3.00	1,567.05	1,717.23	1,376.46
12,265.97	90.00	1.00	10,788.52	1,567.10	565.82	3.00	1,659.40	1,817.10	1,380.82
12,365.97	90.00	0.00	10,788.52	1,667.09	566.69	1.00	1,750.39	1,917.09	1,381.69
12,465.97	90.00	0.00	10,788.52	1,767.09	566.69	0.00	1,841.02	2,017.09	1,381.69
12,565.97	90.00	0.00	10,788.52	1,867.09	566.69	0.00	1,931.65	2,117.09	1,381.69
12,665.97	90.00	0.00	10,788.52	1,967.09	566.69	0.00	2,022.28	2,217.09	1,381.69
12,765.97	90.00	0.00	10,788.52	2,067.09	566.69	0.00	2,112.91	2,317.09	1,381.69
12,865.97	90.00	0.00	10,788.52	2,167.09	566.69	0.00	2,203.54	2,417.09	1,381.69
12,965.97	90.00	0.00	10,788.52	2,267.09	566.69	0.00	2,294.17	2,517.09	1,381.69
13,065.97	90.00	0.00	10,788.52	2,367.09	566.69	0.00	2,384.81	2,617.09	1,381.69
13,165.97	90.00	0.00	10,788.52	2,467.09	566.69	0.00	2,475.44	2,717.09	1,381.69
13,265.97	90.00	0.00	10,788.52	2,567.09	566.69	0.00	2,566.07	2,817.09	1,381.69
13,365.97	90.00	0.00	10,788.52	2,667.09	566.69	0.00	2,656.70	2,917.09	1,381.69
13,465.97	90.00	0.00	10,788.52	2,767.09	566.69	0.00	2,747.33	3,017.09	1,381.69
13,565.97	90.00	0.00	10,788.52	2,867.09	566.69	0.00	2,837.96	3,117.09	1,381.69
13,665.97	90.00	0.00	10,788.52	2,967.09	566.69	0.00	2,928.59	3,217.09	1,381.69
13,765.97	90.00	0.00	10,788.52	3,067.09	566.69	0.00	3,019.22	3,317.09	1,381.69
13,865.97	90.00	0.00	10,788.52	3,167.09	566.69	0.00	3,109.85	3,417.09	1,381.69
13,965.97	90.00	0.00	10,788.52	3,267.09	566.69	0.00	3,200.48	3,517.09	1,381.69
14,065.97	90.00	0.00	10,788.52	3,367.09	566.69	0.00	3,291.11	3,617.09	1,381.69
14,165.97	90.00	0.00	10,788.52	3,467.09	566.69	0.00	3,381.74	3,717.09	1,381.69
14,265.97	90.00	0.00	10,788.52	3,567.09	566.69	0.00	3,472.37	3,817.09	1,381.69
14,365.97	90.00	0.00	10,788.52	3,667.09	566.69	0.00	3,563.01	3,917.09	1,381.69
14,465.97	90.00	0.00	10,788.52	3,767.09	566.69	0.00	3,653.64	4,017.09	1,381.69
14,565.97	90.00	0.00	10,788.52	3,867.09	566.69	0.00	3,744.27	4,117.09	1,381.69
14,665.97	90.00	0.00	10,788.52	3,967.09	566.69	0.00	3,834.90	4,217.09	1,381.69
14,765.97	90.00	0.00	10,788.52	4,067.09	566.69	0.00	3,925.53	4,317.09	1,381.69
14,865.97	90.00	0.00	10,788.52	4,167.09	566.69	0.00	4,016.16	4,417.09	1,381.69

14,965.97	90.00	0.00	10,788.52	4,267.09	566.69	0.00	4,106.79	4,517.09	1,381.69
15,065.97	90.00	0.00	10,788.52	4,367.09	566.69	0.00	4,197.42	4,617.09	1,381.69
15,165.97	90.00	0.00	10,788.52	4,467.09	566.69	0.00	4,288.05	4,717.09	1,381.69
15,265.97	90.00	0.00	10,788.52	4,567.09	566.69	0.00	4,378.68	4,817.09	1,381.69
15,365.97	90.00	0.00	10,788.52	4,667.09	566.69	0.00	4,469.31	4,917.09	1,381.69
15,465.97	90.00	0.00	10,788.52	4,767.09	566.69	0.00	4,559.94	5,017.09	1,381.69
15,565.97	90.00	0.00	10,788.52	4,867.09	566.69	0.00	4,650.58	5,117.09	1,381.69
15,665.97	90.00	0.00	10,788.52	4,967.09	566.69	0.00	4,741.21	5,217.09	1,381.69
15,765.97	90.00	0.00	10,788.52	5,067.09	566.69	0.00	4,831.84	5,317.09	1,381.69
15,865.97	90.00	0.00	10,788.52	5,167.09	566.69	0.00	4,922.47	5,417.09	1,381.69
15,965.97	90.00	0.00	10,788.52	5,267.09	566.69	0.00	5,013.10	5,517.09	1,381.69
16,065.97	90.00	0.00	10,788.52	5,367.09	566.69	0.00	5,103.73	5,617.09	1,381.69
16,165.97	90.00	0.00	10,788.52	5,467.09	566.69	0.00	5,194.36	5,717.09	1,381.69
16,265.97	90.00	0.00	10,788.52	5,567.09	566.69	0.00	5,284.99	5,817.09	1,381.69
16,365.97	90.00	0.00	10,788.52	5,667.09	566.69	0.00	5,375.62	5,917.09	1,381.69
16,465.97	90.00	0.00	10,788.52	5,767.09	566.69	0.00	5,466.25	6,017.09	1,381.69
16,565.97	90.00	0.00	10,788.52	5,867.09	566.69	0.00	5,556.88	6,117.09	1,381.69
16,665.97	90.00	0.00	10,788.52	5,967.09	566.69	0.00	5,647.51	6,217.09	1,381.69
16,765.97	90.00	0.00	10,788.52	6,067.09	566.69	0.00	5,738.14	6,317.09	1,381.69
16,865.97	90.00	0.00	10,788.52	6,167.09	566.69	0.00	5,828.78	6,417.09	1,381.69
16,965.97	90.00	0.00	10,788.52	6,267.09	566.69	0.00	5,919.41	6,517.09	1,381.69
17,065.97	90.00	0.00	10,788.52	6,367.09	566.69	0.00	6,010.04	6,617.09	1,381.69
17,165.97	90.00	0.00	10,788.52	6,467.09	566.69	0.00	6,100.67	6,717.09	1,381.69
17,265.97	90.00	0.00	10,788.52	6,567.09	566.69	0.00	6,191.30	6,817.09	1,381.69
17,365.97	90.00	0.00	10,788.52	6,667.09	566.69	0.00	6,281.93	6,917.09	1,381.69
17,465.97	90.00	0.00	10,788.52	6,767.09	566.69	0.00	6,372.56	7,017.09	1,381.69
17,565.97	90.00	0.00	10,788.52	6,867.09	566.69	0.00	6,463.19	7,117.09	1,381.69
17,665.97	90.00	0.00	10,788.52	6,967.09	566.69	0.00	6,553.82	7,217.09	1,381.69
17,765.97	90.00	0.00	10,788.52	7,067.09	566.69	0.00	6,644.45	7,317.09	1,381.69
17,865.97	90.00	0.00	10,788.52	7,167.09	566.69	0.00	6,735.08	7,417.09	1,381.69
17,965.97	90.00	0.00	10,788.52	7,267.09	566.69	0.00	6,825.71	7,517.09	1,381.69
18,065.97	90.00	0.00	10,788.52	7,367.09	566.69	0.00	6,916.34	7,617.09	1,381.69
18,165.97	90.00	0.00	10,788.52	7,467.09	566.69	0.00	7,006.98	7,717.09	1,381.69
18,265.97	90.00	0.00	10,788.52	7,567.09	566.69	0.00	7,097.61	7,817.09	1,381.69
18,365.97	90.00	0.00	10,788.52	7,667.09	566.69	0.00	7,188.24	7,917.09	1,381.69
18,465.97	90.00	0.00	10,788.52	7,767.09	566.69	0.00	7,278.87	8,017.09	1,381.69
18,565.97	90.00	0.00	10,788.52	7,867.09	566.69	0.00	7,369.50	8,117.09	1,381.69
18,665.97	90.00	0.00	10,788.52	7,967.09	566.69	0.00	7,460.13	8,217.09	1,381.69
18,765.97	90.00	0.00	10,788.52	8,067.09	566.69	0.00	7,550.76	8,317.09	1,381.69
18,865.97	90.00	0.00	10,788.52	8,167.09	566.69	0.00	7,641.39	8,417.09	1,381.69
18,965.97	90.00	0.00	10,788.52	8,267.09	566.69	0.00	7,732.02	8,517.09	1,381.69
19,065.97	90.00	0.00	10,788.52	8,367.09	566.69	0.00	7,822.65	8,617.09	1,381.69
19,165.97	90.00	0.00	10,788.52	8,467.09	566.69	0.00	7,913.28	8,717.09	1,381.69
19,265.97	90.00	0.00	10,788.52	8,567.09	566.69	0.00	8,003.91	8,817.09	1,381.69
19,365.97	90.00	0.00	10,788.52	8,667.09	566.69	0.00	8,094.54	8,917.09	1,381.69
19,465.97	90.00	0.00	10,788.52	8,767.09	566.69	0.00	8,185.18	9,017.09	1,381.69
19,565.97	90.00	0.00	10,788.52	8,867.09	566.69	0.00	8,275.81	9,117.09	1,381.69
19,665.97	90.00	0.00	10,788.52	8,967.09	566.69	0.00	8,366.44	9,217.09	1,381.69
19,765.97	90.00	0.00	10,788.52	9,067.09	566.69	0.00	8,457.07	9,317.09	1,381.69
19,865.97	90.00	0.00	10,788.52	9,167.09	566.69	0.00	8,547.70	9,417.09	1,381.69
19,965.97	90.00	0.00	10,788.52	9,267.09	566.69	0.00	8,638.33	9,517.09	1,381.69
20,065.97	90.00	0.00	10,788.52	9,367.09	566.69	0.00	8,728.96	9,617.09	1,381.69
20,165.97	90.00	0.00	10,788.52	9,467.09	566.69	0.00	8,819.59	9,717.09	1,381.69
20,265.97	90.00	0.00	10,788.52	9,567.09	566.69	0.00	8,910.22	9,817.09	1,381.69
20,365.97	90.00	0.00	10,788.52	9,667.09	566.69	0.00	9,000.85	9,917.09	1,381.69
20,465.97	90.00	0.00	10,788.52	9,767.09	566.69	0.00	9,091.48	10,017.09	1,381.69
20,748.88	90.00	0.00	10,788.52	10,050.00	566.69	0.00	9,347.89	10,300.00	1,381.69 End Lateral

HORIZONTAL SECTION PLAT

Slawson Exploration Company, Inc.
1675 Broadway, Suite 1600 Denver, Colorado 80202

Magnum 1-36-25H

250 feet from the south line and 815 feet from the west line (surface location)

Section 36, T. 153 N., R. 101 W., 5th P.M.

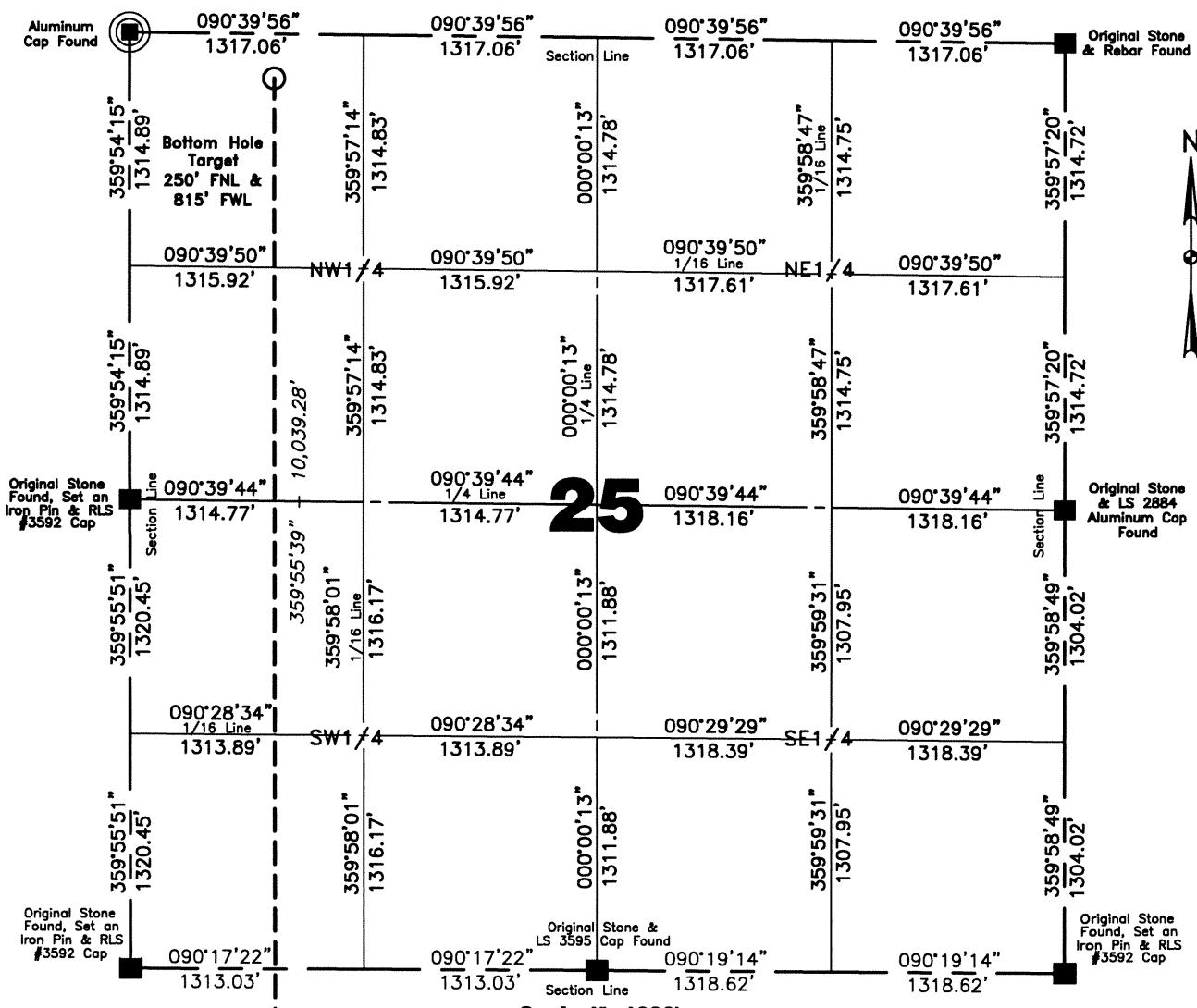
250 feet from the north line and 815 feet from the west line (bottom hole location)

Section 25, T. 153 N., R. 101 W., 5th P.M.

McKenzie County, North Dakota

Surface owner @ well site - Verlin L. Fossum

Latitude 48°01'30.33" North; Longitude 103°37'20.35" West (surface location)
Latitude 48°03'09.39" North; Longitude 103°37'20.48" West (bottom hole location)
[Derived from OPUS Solution NAD-83(CORS96)]

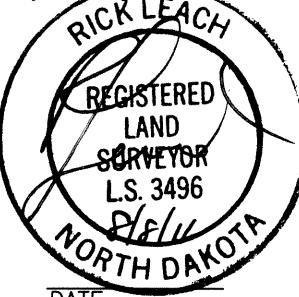


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All corners shown on this plat were found in the field during Slawson Exploration, Magnum 1-36-25H oil well survey on December 16, 2010. Distances to all others are calculated. All azimuths are based on the east line of the SE1/4 of Section 36, being on an azimuth of 000°05'53".

Surveyed By Greg Holkesvig	Field Book Minot OW-#29
Computed & Drawn By Ryan Jaeger	Project No. 3709493

Revised: 8/8/2011



Kadrmas
Lee &
Jackson
Engineers Surveyors
Planners

HORIZONTAL SECTION PLAT

Slawson Exploration Company, Inc.
1675 Broadway, Suite 1600 Denver, Colorado 80202

Magnum 1-36-25H

250 feet from the south line and 815 feet from the west line (surface location)

250 feet from the north line and 815 feet from the west line (bottom hole location)
Section 36, T. 153 N., R. 101 W., 5th P.M.

Section 25, T. 153 N., R. 101 W., 5th P.M.
McKenzie County, North Dakota

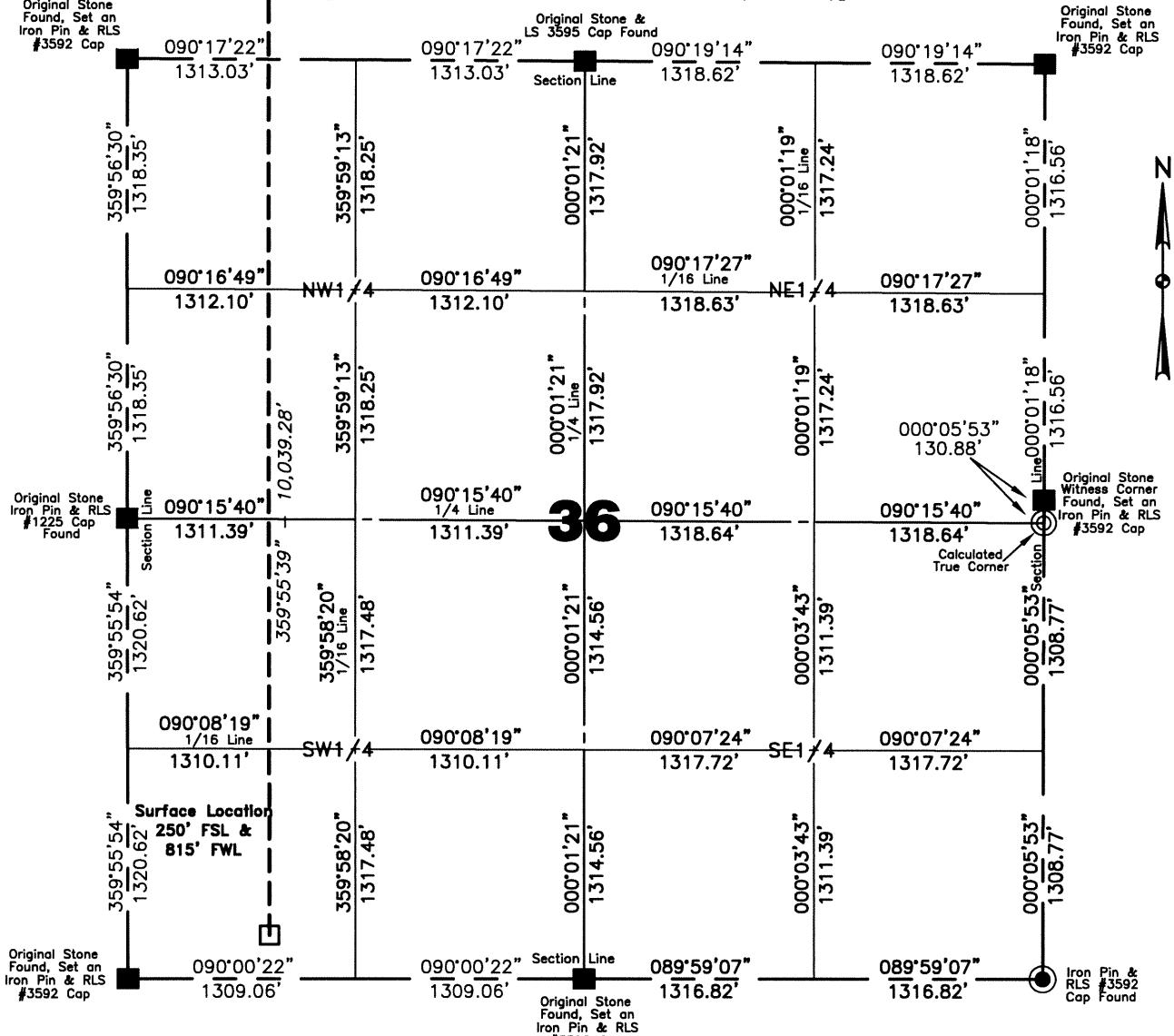
McKenzie County, North Dakota
owner @ well site - Vaseline

Surface owner @ well site - Verlin L. Fossum
" N. H. L. 107-33'00 35" W.

Latitude 48°01'30.33" North; Longitude 103°37'20.35" West (surface location)
Latitude 48°03'09.39" North; Longitude 103°37'20.48" West (bottom hole location)
[Derived from OPUS Solution NAD-83(CORS96)]

Original Stone & Found, Set on

Original Stone &
LS 3595 Cap Found
SAC-174-2

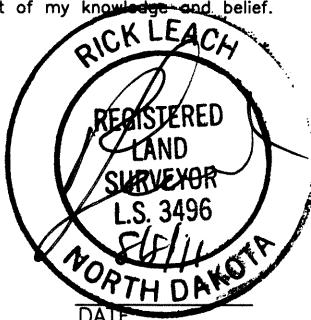


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Scale 1"=1000'

I, Rick Leach, Professional Land Surveyor, N.D. No. 3496, do hereby certify that the survey plat shown hereon was made by me, or under my direction, from notes made in the field, and the same is true and correct to the best of my knowledge and belief.

All corners shown on this plat were found in the field during Slawson Exploration, Magnum 1-36-25H oil well survey on December 16, 2010. Distances to all others are calculated. All azimuths are based on the east line of the SE1/4 of Section 36, being on an azimuth of 000°05'53".



**Kadrimas
Lee &
Jackson**
Engineers Surveyors
Planners

Surveyed By Greg Holkesvig	Field Book Minot OW-#29
Computed & Drawn By Ryan Jaeger	Project No. 3709493

BOTTOM HOLE LOCATION PLAT

Lawson Exploration Company, Inc.
1675 Broadway, Suite 1600 Denver, Colorado 80202

Magnum 1-36-25H

250 feet from the south line and 815 feet from the west line (surface location)

Section 36, T. 153 N., R. 101 W., 5th P.M.

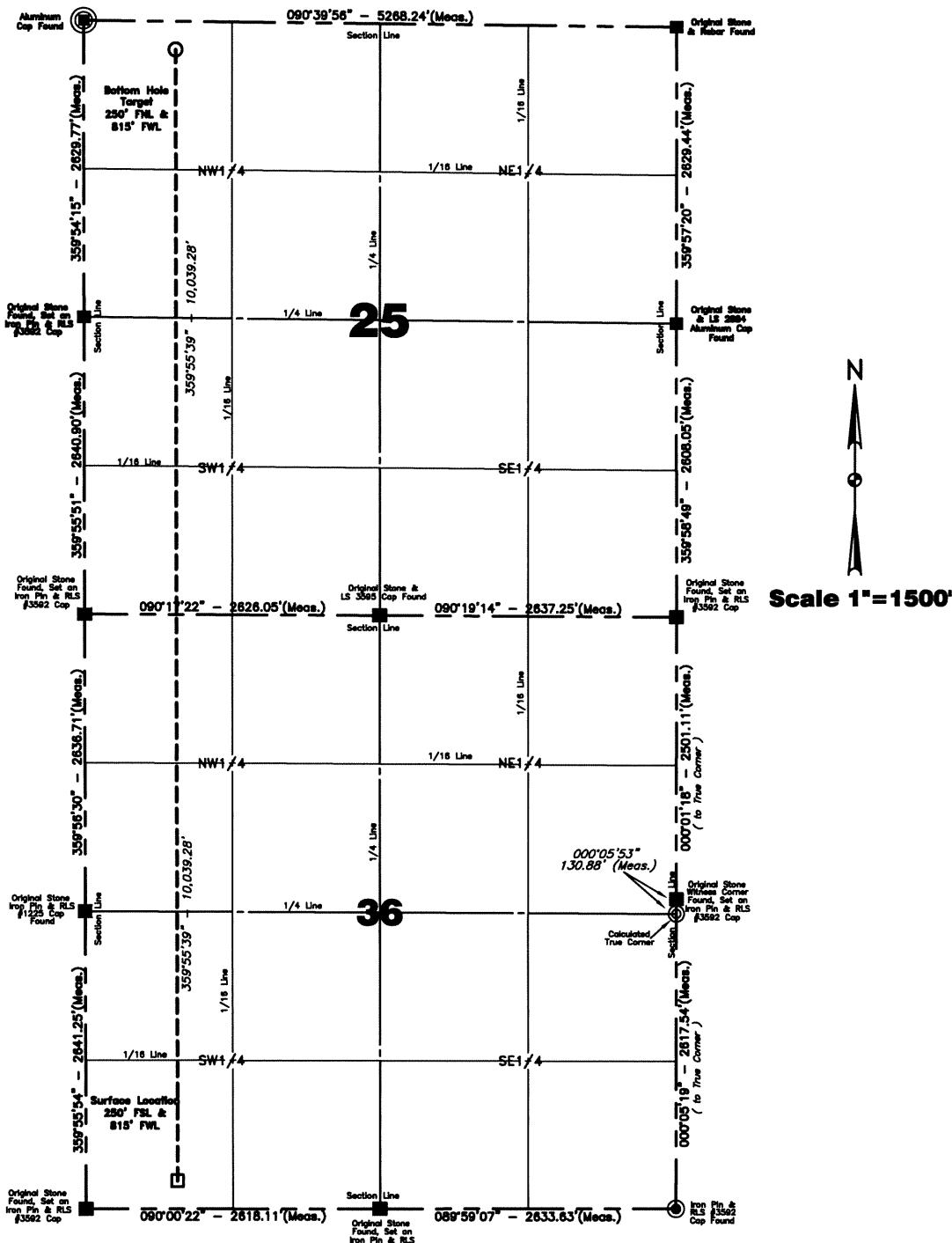
250 feet from the north line and 815 feet from the west line (bottom hole location)

Section 25, T. 153 N., R. 101 W., 5th P.M.

McKenzie County, North Dakota

Surface owner @ well site - Verlin L. Fossum

Latitude 48°01'30.33" North; Longitude 103°37'20.35" West (surface location)
Latitude 48°03'09.39" North; Longitude 103°37'20.48" West (bottom hole location)
[Derived from OPUS Solution NAD-83(CORS96)]



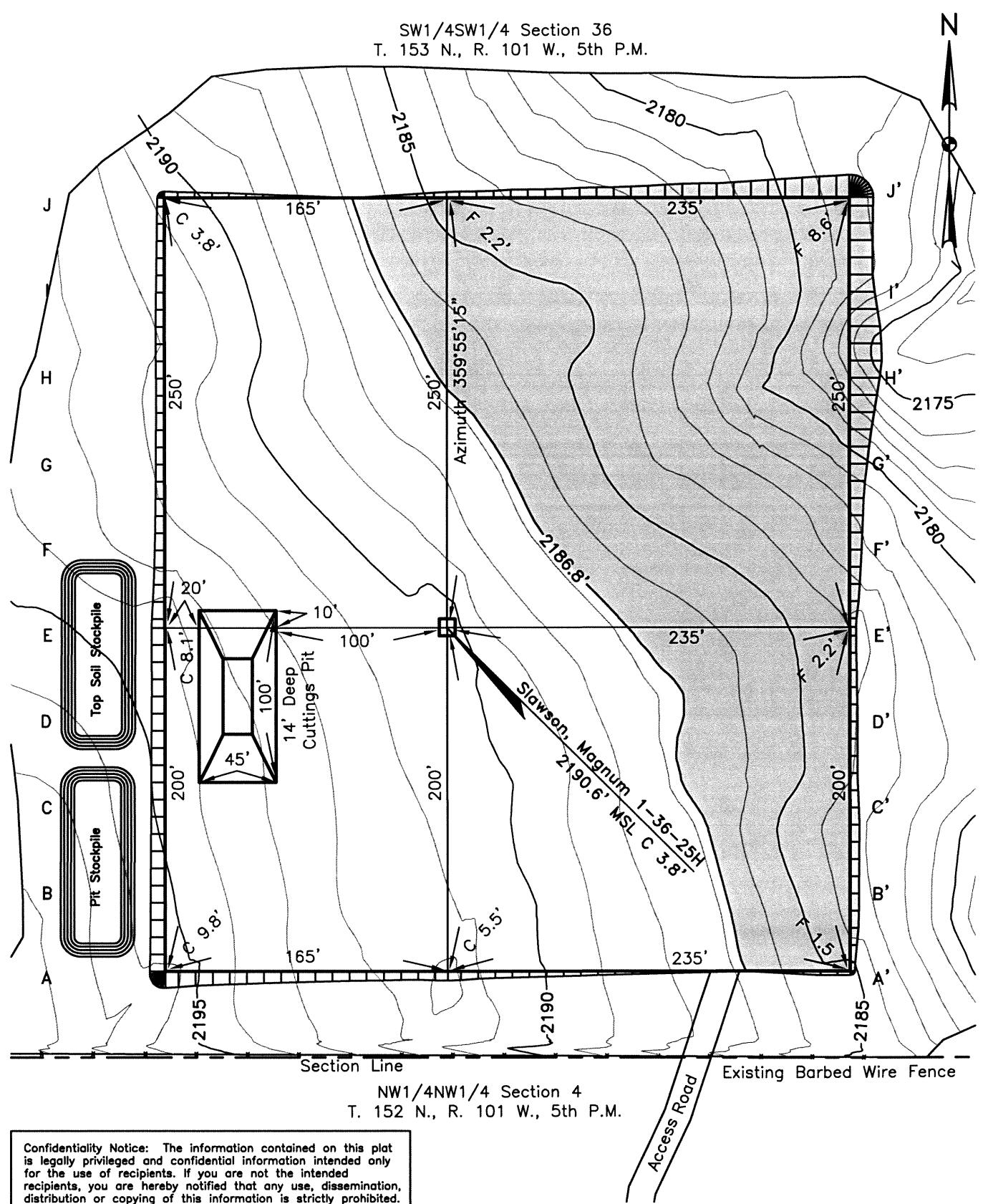
Computed & Drawn By Ryan Jaeger	Surveyed By Greg Holkesvig	Approved By Rick Leach	Scale 1"=1500'	Date 1/21/2011
Field Book OW-Minot-#29	Material B.H. Layout	Revised 8/8/2011	Project No. 3709493	Drawing No. 4

Kadrmas
Lee &
Jackson
Engineers Surveyors
Planners

Magnum 1-36-25H

Pad Layout

SW1/4SW1/4 Section 36
T. 153 N., R. 101 W., 5th P.M.



NW1/4NW1/4 Section 4
T. 152 N., R. 101 W., 5th P.M.

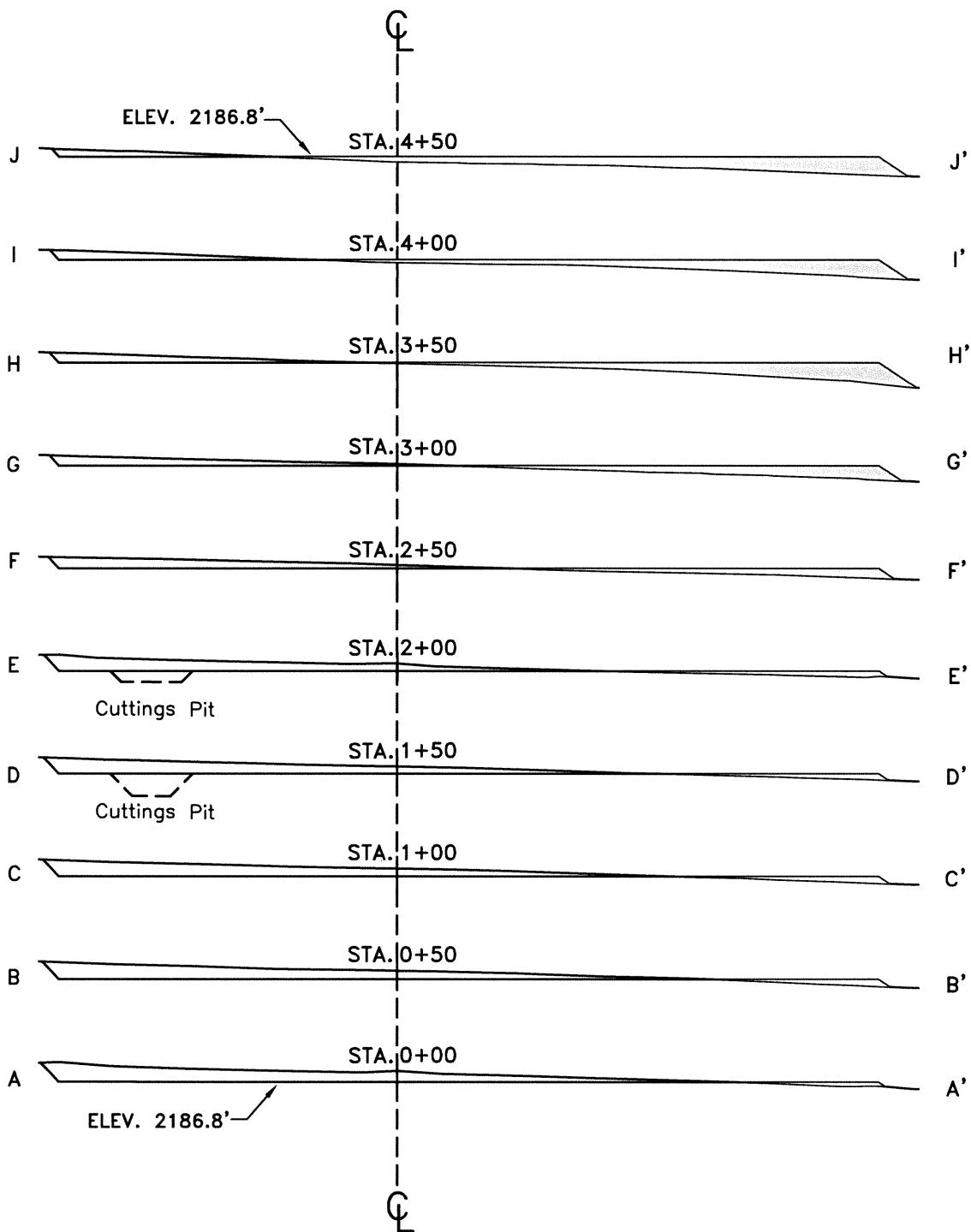
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Drawn By R.J./Z.T.	Surveyed By Greg Holkesvig	Approved By Q.Obrigewitsch	Scale 1" = 80'	Date 1/5/2011
Field Book Minot OW-#29	Material Pad Layout	Revised 8/1/2011	Project No. 3709493	Drawing No. 6

**Kadrmas
Lee &
Jackson**
Engineers Surveyors
Planners

Magnum 1-36-25H

Cross Sections



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Drawn By R.J./Z.T.	Surveyed By Greg Holkesvig	Approved By Q.Obrigewitsch	Scale 1" = 80'	Date 1/5/2011
Field Book Minot OW-#29	Material Cross Sections	Revised 8/1/2011	Project No. 3709493	Drawing No. 7

Slawson Exploration Company, Inc.
Magnum 1-36-25H
Section 36, T 153 N, R 101 W, 5th P.M.
McKenzie County, North Dakota

Well Site Elevation	2190.6' MSL
Well Pad Elevation	2186.8' MSL
Excavation	14,195 C.Y.
Plus Pit	<u>1,900</u> C.Y.
	16,095 C.Y.
Embankment	7,900 C.Y.
Plus Shrinkage (+30%)	<u>2,370</u> C.Y.
	10,270 C.Y.
Stockpile Pit	1,900 C.Y.
Stockpile Top Soil (6")	3,535 C.Y.
Production Rehabilitation	0 C.Y.
Road Embankment & Stockpile from Pad	390 C.Y.
Disturbed Area From Pad	4.38 Acres

NOTE :

All cut end slopes are designed at 1:1 slopes &
All fill end slopes are designed at 1 1/2:1 slopes

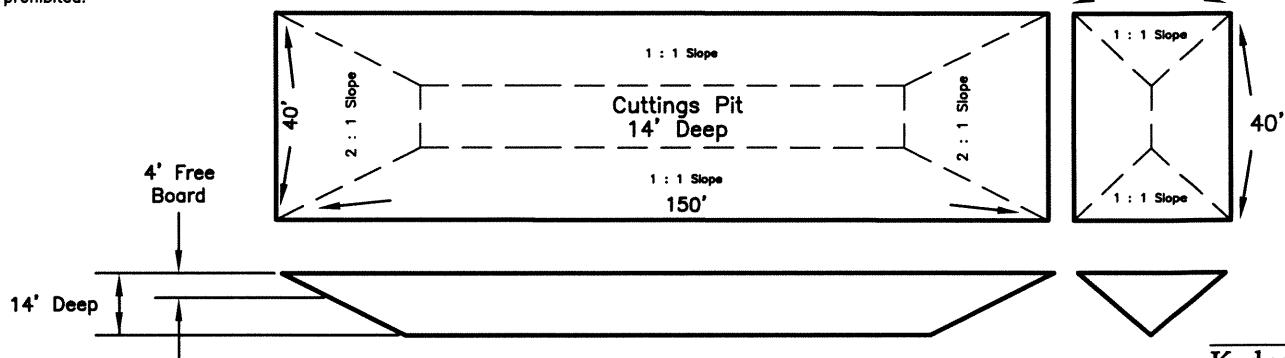
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Well Site Location

250' FSL

815' FWL

Flowback Pit
14' Deep
30'

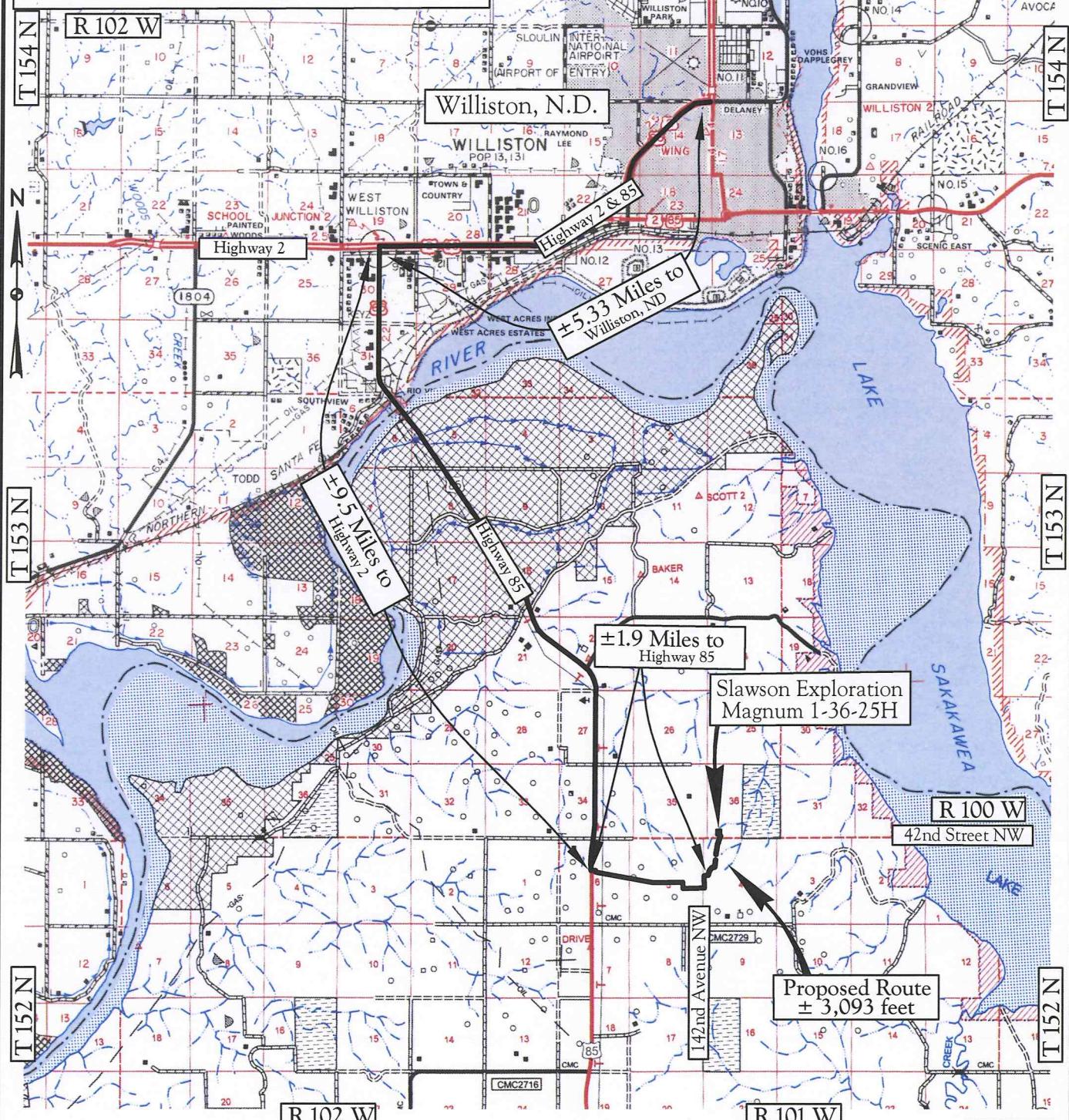


Drawn By Ryan Jaeger	Surveyed By Greg Holkesvig	Approved By Q.Obrigewitsch	Scale None	Date 1/5/2011
Field Book Minot OW-#29	Material Quantities	Revised —	Project No. 3709493	Drawing No. 5

Kadrmas
Lee &
Jackson
Engineers Surveyors
Planners

Slawson Exploration Co., Inc.
 Magnum 1-36-25H
 250' FSL & 815' FWL
 SW1/4SW1/4 Section 36
 T.153N., R.101W., 5th P.M.
 McKenzie County, ND

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Map "A"
 County Access Route

Legend

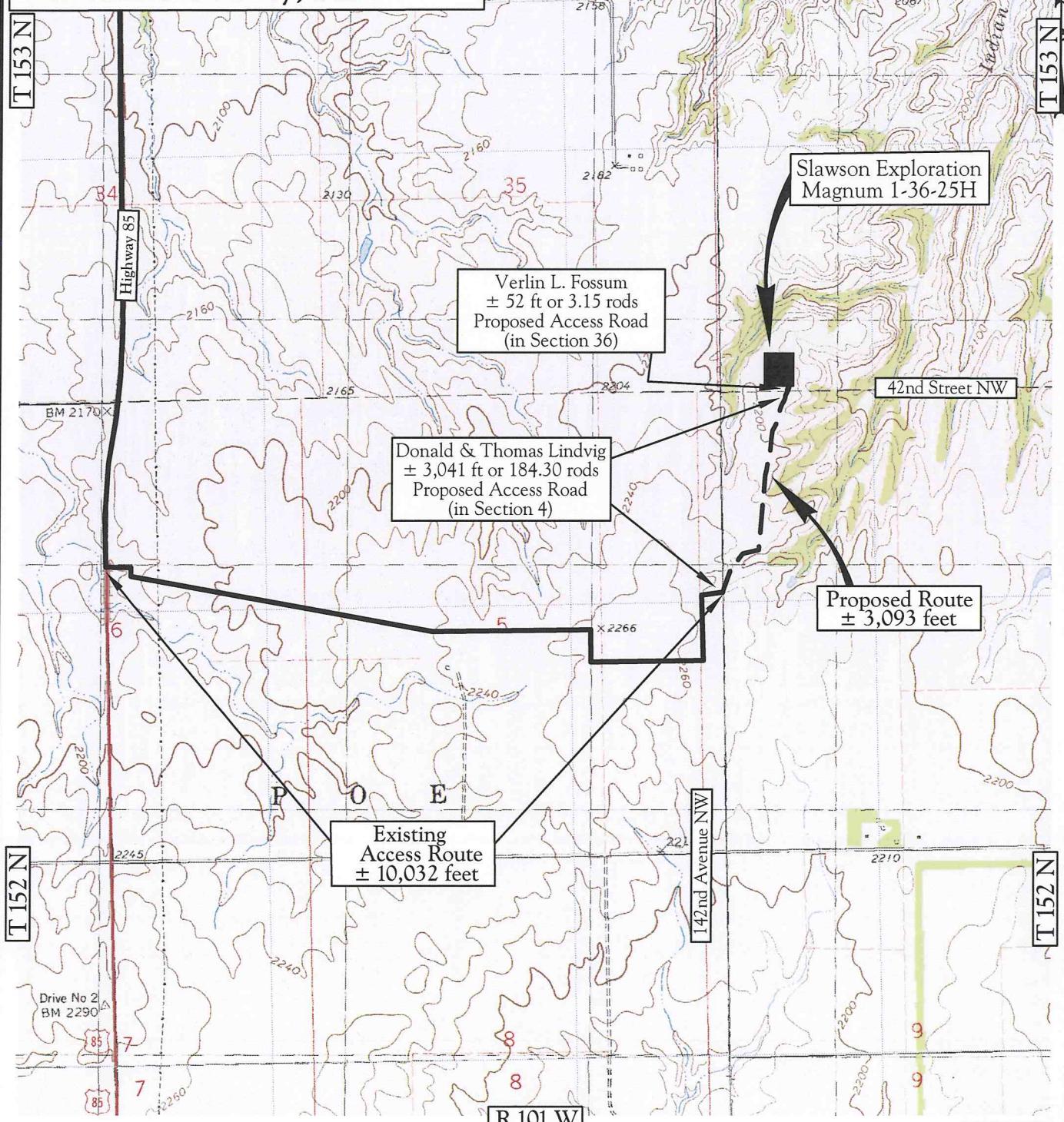
Existing Roads	—
Proposed Roads	- - -

Scale 1"=2 Miles

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 Lee &
 Jackson
 Engineers Surveyors
 Planners

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Map "B" Quad Access Route

Legend

Existing Roads
Proposed Roads

Scale 1"=2000'

**Kadrmas
Lee &
Jackson**
Engineers Surveyors
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