

State of Colorado
Oil and Gas Conservation Commission

1120 Lincoln Street, Suite 801, Denver, Colorado 80203 Phone: (303)894-2100 Fax:(303)894-2109



DE	ET	OE	ES

DRILLING COMPLETION REPORT

This form is to be submitted within 30 days of the setting of production casing, the plugging of a dry hole, the deepening or sidetracking of a well, or any time the wellbore configuration is changed. If the well is deepened or sidetracked a new Form 5 is required. If an attempt has been made to complete/produce a well, then the operator shall submit Form 5A (Completed Interval Report.) If the well has been plugged, a form 6 (Well Abandonment Report) is required.

1. OGCC Operator Number: 76104	4. Contact Name Kathy Staton
2. Name of Operator: SAMSON RESOURCES COMPANY	Phone: (918) 591-1971
3. Address: Two West Second Street	Fax: (918) 591-7971
City: Tulsa State: OK Zip: 74103-3103	

Complete the
Attachment Checklist

OP OGCC

5. API Number 05-067-09252-00	6. County: La Plata
7. Well Name: HARPER	Well Number: 2-13U
8. Location (QtrQtr, Sec, Twp, Rng, Meridian): SWSE 13U-34N-7W NMPM	
Footage at surface: 1040 FSL 1519 FEL	
As Drilled Latitude: 37.18676848	As Drilled Longitude: 107.5555355
GPS Data:	
Date of Measurement 6/14/2007 PDOP Reading: 3.3 GPS Instrument Operator's Name: I. Ellison	

Logs		
Directional Survey**		
DST Analysis		
Core Analysis		
Cmt summary*		

** If directional, footage at Top of Prod. Zone 1817 FSL 821 FEL	Sec, Twp, Rng 13U-34N-7W
** If directional, footage at Bottom Hole 1966 FSL 669 FEL	Sec, Twp, Rng 13U-34N-7W

9. Field Name: Ignacio Blanco	10. Field Number 38300
11. Federal, Indian or State Lease Number:	Fee

15. Well Classification		
<input type="checkbox"/> Dry	<input type="checkbox"/> Oil	<input type="checkbox"/> Gas
<input checked="" type="checkbox"/> Coalbed <input type="checkbox"/> Disposal		
<input type="checkbox"/> Stratigraphic		
<input type="checkbox"/> Enhanced Recovery		
<input type="checkbox"/> Gas Storage		
<input type="checkbox"/> Observation		
Other: _____		

12. Spud Date: (when the 1st bit hit the dirt) 4/28/2007	13. Date TD: 5/2/2007	14. Date Casing Set or D&A: 5/3/2007
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16. Total Depth MD 3455' TVD** 3135'	17. Plug Back Total Depth MD 3344' TVD** 3037'
18. Elevations GR 6835' KB 6847'	
One paper copy of all electric and mud logs must be submitted, along with one digital LAS copy as available.	

19. List Electric Logs Run:

20. CASING, LINER and CEMENT

*If Cement Bond Log was not run, submit contractor's cement job summary for each string cemented

String	Hole Size	Csg/Liner Size	Csg/Liner Top	Csg/Tool Setting Depth	Number of sacks cmt	Cement Top	Cement Bottom	CBL*	Calculated*
Conductor									
Surface	12.25"	8.625"	surface	349'	285	surface	349'		
Production	7.875"	5.50"	surface	3410'	440	surface	3410'		
Stage, Squeeze, Remedial Cement Job									
Liner									
Liner									

21. FORMATION LOG INTERVALS AND TEST ZONES

FORMATION NAME	Measured Depth		Check if applies			
	Top	Bottom	DST	Cored		
Kirtland	1998'					
Fruitland FM	3011'					
Pictured Cliffs	3133'					

All DST and Core Analyses must be submitted to COGCC	
COMMENTS	

I hereby certify that the statements made in this form are, to the best of my knowledge, true, correct and complete.

Print Name: Randal L. Maxwell E-mail: kstaton@samson.com

Signature: [Signature] Title: Regulatory Engineer Date: 8 /24/2007

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COMPLETED INTERVAL REPORT

The Completed Interval Report, Form 5A, shall be submitted within thirty (30) days of completing a formation (successful or not), when a formation is temporarily abandoned or permanently abandoned, for a recompletion, reperforation or restimulation, or when a formation is commingled. Fill out a section for each formation. Attach as many pages as required to fully describe the work. List in order of completion.

1. OGCC Operator Number: 76104	4. Contact Name Kathy Staton	Complete the Attachment Checklist
2. Name of Operator: Samson Resources Company	Phone: (918) 591-1971	
3. Address: Two West Second St.	Fax: (918) 591-7971	
City: Tulsa State: OK Zip: 74103-3103		
5. API Number 05-067-09252-00	6. County: La Plata	OP OGCC
7. Well Name: HARPER	Well Number: 2-13U	wellbore diagram
8. Location (QtrQtr, Sec, Twp, Rng, Meridian): SWSE 13U-34N-7W NMPM		

FORMATION: Fruitland Coal	Status Producing
Treatment Date: 6/6/2007	Date of First Production this formation: 6/13/2007
Perforations Top: 3016' Bottom: 3096' No. Holes 168 Hole size: 0.40"	
Provide a brief summary of the formation treatment: Open Hole	
Perf from 3064'-3068', 3068'-3092' & 3092'-3096'. Acidized w/100 bbls 15% HCL acid & 168 Bioball sealers. First Stage Frac w/197,453# 20/40 Brady sand w/sandwedge & 1735 bbls 20# Delta 140XL Gel. Set CIBP @ 3061'. Perf 3016'-20' 2spf, 3020'-28' 4spf & 3040'-44' 4spf. Acidized w/50bbls 15% HCL acid and 72 Bio ball sealers. Second Stage Frac w/143,187# 20/40 Brady sand w/sandwedge & 1,314 bbls 20# Delta 140XL. CO to & DO CIBP @ 3061'.	
This formation is commingled with another formation no	
Test Information:	
Date: 7/1/2007 Hours: 24 Bbls oil: 0 Mcf Gas: 326 Bbls H ₂ O: 42	
Calculated 24 hour rate: Bbls oil: Mcf Gas: Bbls H ₂ O: GOR:	
Test Method: flowing Casing PSI: 422 Tubing PSI: 218 Choke size: 12/64"	
Gas Disposition: sold Gas Type: Coal Gas BTU Gas: API Gravity Oil:	
Tubing Size: 2.375" Tubing Setting Depth: 3069' Tbg setting date: 6/12/2007 Packer Depth:	
Reason for Non-Production:	
Date formation Abandoned: Squeezed Yes No If yes number of sacks cmt	
Bridge Plug Depth: Sacks cement on top:	

FORMATION:	Status
Treatment Date:	Date of First Production this formation:
Perforations Top: Bottom: No. Holes Hole size:	
Provide a brief summary of the formation treatment: Open Hole	
This formation is commingled with another formation	
Test Information:	
Date: Hours: Bbls oil: Mcf Gas: Bbls H ₂ O:	
Calculated 24 hour rate: Bbls oil: Mcf Gas: Bbls H ₂ O: GOR:	
Test Method: flowing w/ compressor Casing PSI: Tubing PSI: Choke size:	
Gas Disposition: Gas Type: BTU Gas: API Gravity Oil:	
Tubing Size: Tubing Setting Depth: Tbg setting date: Packer Depth:	
Reason for Non-Production:	
Date formation Abandoned: Squeezed Yes No If yes number of sacks cmt	
Bridge Plug Depth: Sacks cement on top:	

I hereby certify that the statements made in this form are, to the best of my knowledge, true, correct and complete.

Print Name: Randal L. Maxwell Email: kstaton@samson.com

Signature: Randal L. Maxwell / RLS Title: Regulatory Engineer Date: 8/24/2007

State of Colorado
Oil and Gas Conservation Commission

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FOR OGCC USE ONLY

CERTIFICATION OF CLEARANCE AND/OR CHANGE OF OPERATOR

This form should be completed and filed by the New Operator. **Submit original plus one copy.** Use Page 2 of Form 10 for multiple wells changing from the same operator to the new operator or when the "Change of Transporter/Gatherer" on multiple wells are the same. This form is not to be used for Well Name changes or Status changes. Form more information/codes, see www.oil-gas.state.co.us/forms. **It is the Operator's responsibility to mail approved copies to the new Transporter and/or Gatherer for each well listed.**

1. OGCC Operator Number: 76104	4. Contact Name and Phone Kathy Staton
2. Name of Operator: Samson Resources Company	No: (918) 591-1971
3. Address: Two West Second Street	Fax: (918) 591-7971
City: Tulsa State: OK Zip: 74103	

Operator Bond Status

☐ Blanket

☐ Individual

☐ Change of Operator ☒ Add/Change Transporter or Gatherer

Effective Date: _____ Effective Date: **6/13/2007**

Complete This Section for a New or Individual Well:		
Well Name & Number: HARPER 2-13U	API Number: 05-067-09252-00	
Location: (QtrQtr, Sec, Twp, Rng, Meridian): SWSE 13U-34N-7W NMPM		
Date of First Production: 6/13/2007	Date of First Sales: Gas: 6/13/07 Oil:	

<input checked="" type="checkbox"/> Add <input type="checkbox"/> Delete	<input checked="" type="checkbox"/> Add <input type="checkbox"/> Delete
Product: <input type="checkbox"/> Oil <input checked="" type="checkbox"/> Gas	Product: <input type="checkbox"/> Oil <input checked="" type="checkbox"/> Gas
Name of Transporter/Gatherer: Williams Energy Services	Name of Transporter/Gatherer: Red Cedar Gathering
OGCC Transporter No: 96701	OGCC Transporter No: 73721
Address: One Williams Center	
City: Tulsa	City: Durango
State: OK	State: CO
Zip: 74172-0140	Zip: 81301
Area Code and Phone Number: (800) 945-5426	
Area Code and Phone Number: (970) 247-5754	

<input type="checkbox"/> Add <input type="checkbox"/> Delete	<input type="checkbox"/> Add <input type="checkbox"/> Delete
Product: <input type="checkbox"/> Oil <input type="checkbox"/> Gas	Product: <input type="checkbox"/> Oil <input type="checkbox"/> Gas
Name of Transporter/Gatherer:	Name of Transporter/Gatherer:
OGCC Transporter No:	OGCC Transporter No:
Address:	
City:	City:
State:	State:
Zip:	Zip:
Area Code and Phone Number:	
Area Code and Phone Number:	

Remarks: _____

The undersigned certifies that the rules and regulations of the Oil and Gas Conservation Commission of the State of Colorado have been complied with except as noted above and that the transporter(s) is (are) authorized to transport the oil and/or gas produced from the above described well and that this authorization will be valid until further notice to the transporter named herein or until cancelled by the Colorado Oil and Gas Conservation Commission.

Name of Current Operator: Samson Resources Company	Name of Selling Operator:
Signature: <i>Randal L. Maxwell</i> Date: 8/24/07	Signature: Date:
Print Name: Randal L. Maxwell	Print Name: Title:
Title: Regulatory Engineer	

OGCC Approved: _____ Title: _____ Date: _____



Project: La Plata County, Co (NAD 83)
Site: SEC 13U-T34N-R7W
Well: HARPER #2-13U
Wellbore: Wellbore #1
Survey: MWD Survey (HARPER #2-13U/Wellbore #1)



SURVEY PROGRAM

Date: 2007-05-01T00:00:00 Validated: Yes Version:

Depth From	Depth To	Survey/Plan	Tool
427.0	3455.0	MWD Survey (Wellbore #1)	MWD

LEGEND

- ⊕ HARPER #2-13U, Wellbore #1, Plan #1 V0
- ⊖ MWD Survey

WELLBORE TARGET DETAILS (MAP CO-ORDINATES AND LAT/LONG)

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
EAST HARDLINE HARPER 2-13U		938.0	859.0	1196910.66	2402092.09	37° 11' 21.866 N	107° 33' 9.550 W	Polygon
NORTH HARDLINE HARPER2-13U		938.0	859.0	1196910.66	2402092.09	37° 11' 21.866 N	107° 33' 9.550 W	Polygon
PBHL HARPER 2-13U	3130.0	938.0	859.0	1196910.66	2402092.09	37° 11' 21.866 N	107° 33' 9.550 W	Circle (Radius: 150.0)

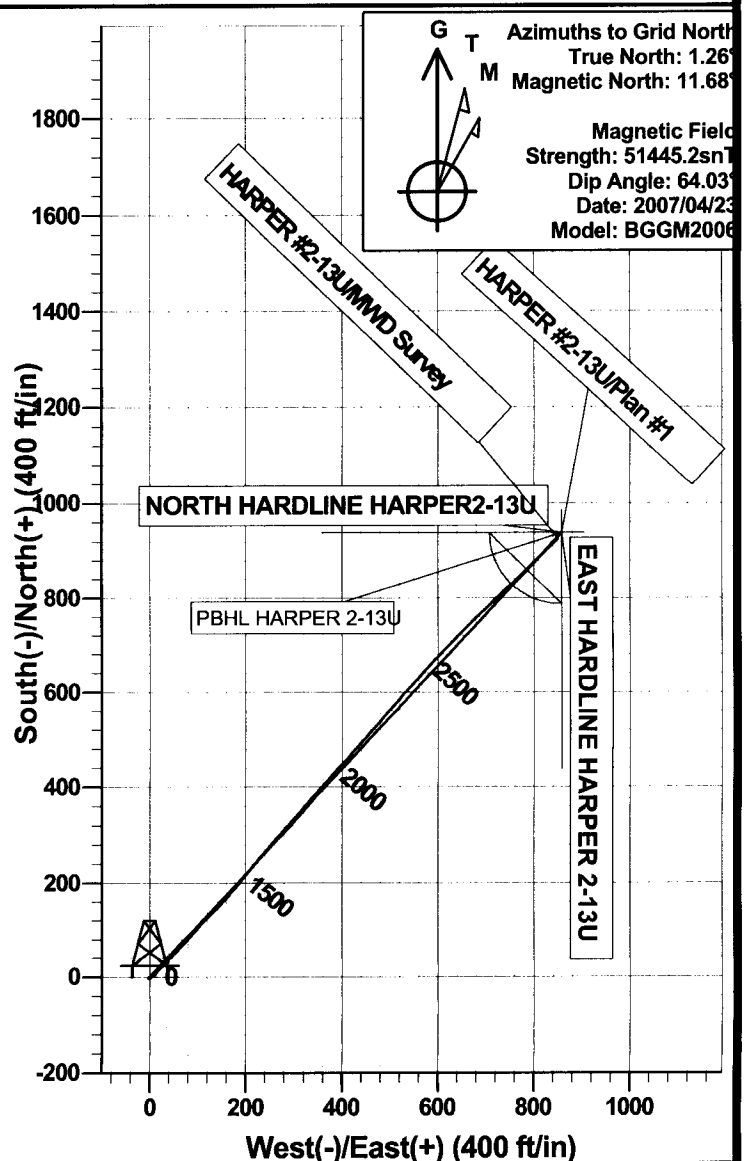
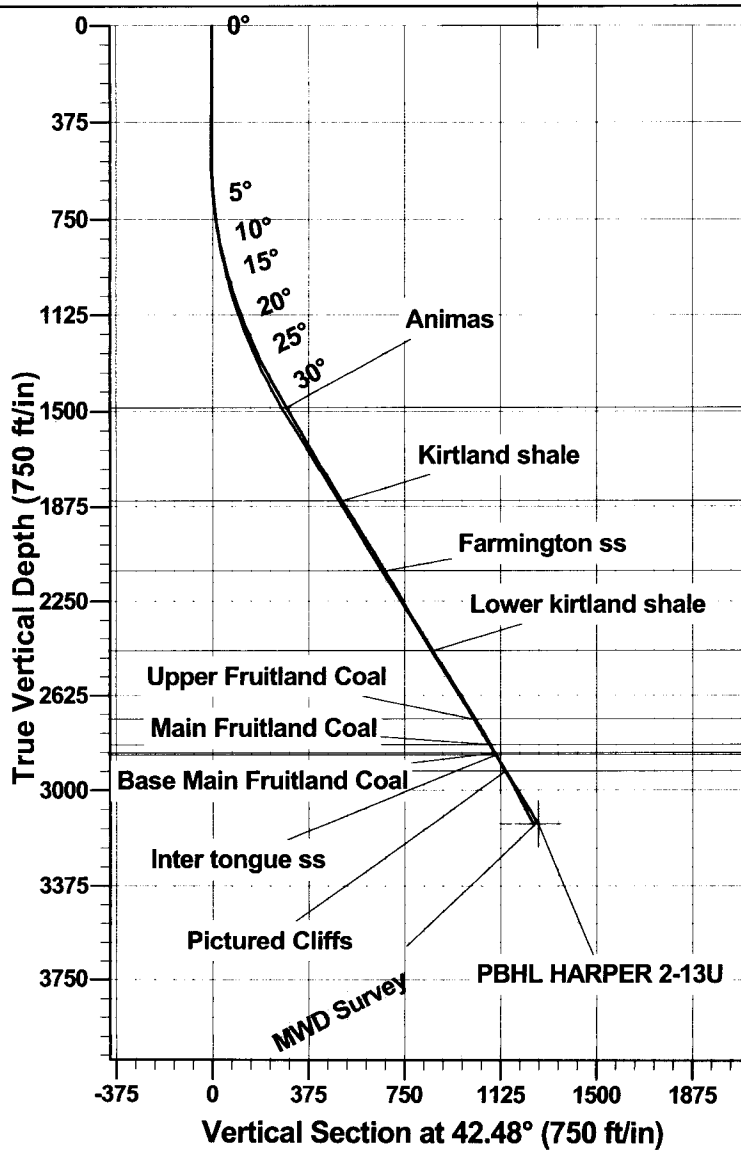
PROJECT DETAILS: La Plata County, Co (NAD 83)

Geodetic System: US State Plane 1983
Datum: North American Datum 1983
Ellipsoid: GRS 1980
Zone: Colorado Southern Zone

System Datum: Mean Sea Level

WELL DETAILS: HARPER #2-13U

	Ground Level:	6835.0	
Northing	Easting	Latitude	Longitude
1195972.66	2401233.09	37° 11' 12.408 N	107° 33' 19.908 W



Samson Resources Company

La Plata County, Co (NAD 83)

SEC 13U-T34N-R7W

HARPER #2-13U

Wellbore #1

Survey: MWD Survey

Standard Survey Report

07 May, 2007

Scientific Drilling
Survey Report

Company:	Samson Resources Company	Local Co-ordinate Reference:	Well HARPER #2-13U
Project:	La Plata County, Co (NAD 83)	TVD Reference:	WELL @ 6847.0ft (Original Well Elev)
Site:	SEC 13U-T34N-R7W	MD Reference:	WELL @ 6847.0ft (Original Well Elev)
Well:	HARPER #2-13U	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	ACTUAL	Database:	EDM 2004.16 Database

Project	La Plata County, Co (NAD 83)		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	Colorado Southern Zone		

Site	SEC 13U-T34N-R7W				
Site Position:		Northing:	1,195,972.66 ft	Latitude:	37° 11' 12.408 N
From:	Lat/Long	Easting:	2,401,233.09ft	Longitude:	107° 33' 19.908 W
Position Uncertainty:	0.0 ft	Slot Radius:	"	Grid Convergence:	-1.26 °

Well	HARPER #2-13U					
Well Position	+N/-S	0.0 ft	Northing:	1,195,972.66 ft	Latitude:	37° 11' 12.408 N
	+E/-W	0.0 ft	Easting:	2,401,233.09 ft	Longitude:	107° 33' 19.908 W
Position Uncertainty	0.0 ft	Wellhead Elevation:	6,847.0 ft	Ground Level:	6,835.0 ft	

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	BGGM2006	2007/04/23	10.42	64.03	51,445

Design	ACTUAL				
Audit Notes:					
Version:	1.0	Phase:	ACTUAL	Tie On Depth:	0.0
Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)	
	0.0	0.0	0.0	42.48	

Survey Program	Date 2007/05/07			
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description
427.0	3,455.0	MWD Survey (Wellbore #1)	MWD	MWD - Standard ISCWSA

Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00
EAST HARDLINE HARPER 2-13U - NORTH HARDLINE HARPER2-13U									
427.0	0.95	224.08	427.0	-2.5	-2.5	-3.5	0.22	0.22	0.00
489.0	0.43	115.48	489.0	-3.0	-2.6	-4.0	1.87	-0.84	-175.16
550.0	2.33	67.99	550.0	-2.6	-1.3	-2.8	3.38	3.11	-77.85
611.0	4.15	60.75	610.9	-1.1	1.8	0.4	3.05	2.98	-11.87
673.0	6.11	50.95	672.6	2.1	6.3	5.8	3.45	3.16	-15.81
733.0	7.65	40.39	732.2	7.1	11.4	13.0	3.31	2.57	-17.60
795.0	9.74	40.21	793.5	14.3	17.5	22.3	3.37	3.37	-0.29
856.0	11.90	44.76	853.4	22.7	25.2	33.8	3.81	3.54	7.46
918.0	13.94	44.56	913.8	32.5	35.0	47.6	3.29	3.29	-0.32
979.0	16.34	42.50	972.7	44.1	45.9	63.5	4.03	3.93	-3.38
1,040.0	17.76	42.65	1,031.0	57.3	58.0	81.4	2.33	2.33	0.25

Scientific Drilling
Survey Report

Company: Samson Resources Company
Project: La Plata County, Co (NAD 83)
Site: SEC 13U-T34N-R7W
Well: HARPER #2-13U
Wellbore: Wellbore #1
Design: ACTUAL

Local Co-ordinate Reference: Well HARPER #2-13U
TVD Reference: WELL @ 6847.0ft (Original Well Elev)
MD Reference: WELL @ 6847.0ft (Original Well Elev)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: EDM 2004.16 Database

Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
1,103.0	19.38	42.40	1,090.7	72.1	71.6	101.5	2.57	2.57	-0.40
1,167.0	21.23	41.53	1,150.7	88.6	86.4	123.7	2.93	2.89	-1.36
1,230.0	23.17	43.09	1,209.1	106.2	102.5	147.5	3.22	3.08	2.48
1,293.0	25.12	43.84	1,266.5	124.9	120.2	173.3	3.13	3.10	1.19
1,356.0	26.68	42.94	1,323.2	144.9	139.1	200.8	2.55	2.48	-1.43
1,420.0	28.77	41.05	1,379.9	167.0	159.0	230.5	3.54	3.27	-2.95
1,483.0	30.55	38.98	1,434.6	190.9	179.0	261.7	3.26	2.83	-3.29
1,542.6	30.39	38.59	1,486.0	214.5	198.0	291.9	0.43	-0.27	-0.65
Animas									
1,546.0	30.38	38.57	1,488.9	215.8	199.0	293.6	0.43	-0.27	-0.65
1,610.0	29.58	39.14	1,544.4	240.7	219.1	325.5	1.33	-1.25	0.89
1,673.0	30.03	41.31	1,599.0	264.6	239.3	356.8	1.85	0.71	3.44
1,737.0	31.29	41.21	1,654.1	289.1	260.8	389.4	1.97	1.97	-0.16
1,800.0	30.97	41.71	1,708.0	313.5	282.4	422.0	0.65	-0.51	0.79
1,863.0	30.57	40.74	1,762.1	337.8	303.6	454.2	1.01	-0.63	-1.54
1,926.0	31.15	41.71	1,816.2	362.1	324.9	486.5	1.21	0.92	1.54
1,966.6	30.99	42.27	1,851.0	377.7	339.0	507.4	0.81	-0.39	1.37
Kirtland shale									
1,990.0	30.90	42.59	1,871.1	386.5	347.1	519.5	0.81	-0.39	1.38
2,053.0	31.67	41.22	1,924.9	410.9	368.9	552.2	1.66	1.22	-2.17
2,116.0	31.88	41.10	1,978.5	435.9	390.8	585.3	0.35	0.33	-0.19
2,179.0	31.59	39.79	2,032.0	461.1	412.3	618.5	1.19	-0.46	-2.08
2,242.0	30.51	41.40	2,086.0	485.8	433.4	650.9	2.16	-1.71	2.56
2,288.4	30.53	41.72	2,126.0	503.4	449.0	674.5	0.35	0.05	0.69
Farmington ss									
2,306.0	30.54	41.84	2,141.1	510.1	455.0	683.4	0.35	0.05	0.69
2,369.0	30.09	41.18	2,195.5	533.9	476.1	715.2	0.89	-0.71	-1.05
2,432.0	29.96	40.79	2,250.1	557.7	496.7	746.7	0.37	-0.21	-0.62
2,496.0	30.00	39.57	2,305.5	582.1	517.4	778.7	0.95	0.06	-1.91
2,559.0	30.64	41.52	2,359.9	606.3	538.0	810.5	1.86	1.02	3.10
2,623.0	31.25	42.65	2,414.8	630.7	560.1	843.4	1.32	0.95	1.77
2,659.5	31.39	42.63	2,446.0	644.7	573.0	862.4	0.38	0.38	-0.05
Lower kirtland shale									
2,686.0	31.49	42.62	2,468.6	654.8	582.3	876.2	0.38	0.38	-0.05
2,750.0	31.45	42.71	2,523.2	679.4	605.0	909.6	0.10	-0.06	0.14
2,813.0	31.36	42.61	2,576.9	703.5	627.2	942.4	0.17	-0.14	-0.16
2,876.0	30.85	43.03	2,630.9	727.4	649.3	975.0	0.88	-0.81	0.67
2,939.0	31.40	44.56	2,684.8	750.9	671.9	1,007.5	1.53	0.87	2.43
2,981.5	31.76	45.29	2,721.0	766.6	687.6	1,029.8	1.25	0.86	1.73
Upper Fruitland Coal									
3,003.0	31.95	45.66	2,739.3	774.6	695.7	1,041.1	1.25	0.86	1.70
3,066.0	29.14	46.17	2,793.5	796.9	718.7	1,073.1	4.48	-4.46	0.81
3,097.4	28.67	46.41	2,821.0	807.4	729.6	1,088.2	1.54	-1.50	0.75
Main Fruitland Coal									
3,130.0	28.18	46.66	2,849.7	818.1	740.9	1,103.7	1.54	-1.50	0.78
3,133.8	28.21	46.65	2,853.0	819.3	742.2	1,105.4	0.82	0.81	-0.23
Base Main Fruitland Coal									
3,142.8	28.28	46.63	2,861.0	822.2	745.3	1,109.7	0.82	0.81	-0.22
Inter tongue ss									
3,193.0	28.69	46.52	2,905.1	838.7	762.7	1,133.6	0.82	0.81	-0.22
3,216.8	28.72	46.28	2,926.0	846.6	771.0	1,145.0	0.50	0.11	-1.02
Pictured Cliffs									
3,257.0	28.76	45.87	2,961.2	860.0	784.9	1,164.3	0.50	0.11	-1.01

Scientific Drilling
Survey Report

Company:	Samson Resources Company	Local Co-ordinate Reference:	Well HARPER #2-13U
Project:	La Plata County, Co (NAD 83)	TVD Reference:	WELL @ 6847.0ft (Original Well Elev)
Site:	SEC 13U-T34N-R7W	MD Reference:	WELL @ 6847.0ft (Original Well Elev)
Well:	HARPER #2-13U	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	ACTUAL	Database:	EDM 2004.16 Database

Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
3,320.0	28.32	44.86	3,016.6	881.1	806.3	1,194.3	1.04	-0.70	-1.60
3,403.0	27.75	44.06	3,089.8	908.9	833.6	1,233.3	0.82	-0.69	-0.96
3,455.0	27.75	44.06	3,135.8	926.3	850.5	1,257.5	0.00	0.00	0.00
PBHL HARPER 2-13U									

Targets									
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (ft)	Easting (ft)	Latitude	Longitude
- hit/miss target									
- Shape									
PBHL HARPER 2-13U	0.00	0.00	3,130.0	938.0	859.0	1,196,910.66	2,402,092.09	37° 11' 21.866 N	107° 33' 9.550 W
- survey misses by 15.6ft at 3455.0ft MD (3135.8 TVD, 926.3 N, 850.5 E)									
- Circle (radius 150.0)									
EAST HARDLINE HARF	0.00	0.00	0.0	938.0	859.0	1,196,910.66	2,402,092.09	37° 11' 21.866 N	107° 33' 9.550 W
- survey misses by 1271.9ft at 0.0ft MD (0.0 TVD, 0.0 N, 0.0 E)									
- Polygon									
Point 1			0.0	938.0	859.0	1,196,910.66	2,402,092.09		
Point 2			0.0	438.0	859.0	1,196,410.66	2,402,092.09		
NORTH HARDLINE HAI	0.00	0.00	0.0	938.0	859.0	1,196,910.66	2,402,092.09	37° 11' 21.866 N	107° 33' 9.550 W
- survey misses by 1271.9ft at 0.0ft MD (0.0 TVD, 0.0 N, 0.0 E)									
- Polygon									
Point 1			0.0	938.0	859.0	1,196,910.66	2,402,092.09		
Point 2			0.0	938.0	359.0	1,196,910.66	2,401,592.09		

Formations						
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)	
1,542.6	1,486.0	Animas		0.00	0.00	
1,966.6	1,851.0	Kirtland shale		0.00	0.00	
2,288.4	2,126.0	Farmington ss		0.00	0.00	
2,659.5	2,446.0	Lower kirtland shale		0.00	0.00	
2,981.5	2,721.0	Upper Fruitland Coal		0.00	250.55	
3,097.4	2,821.0	Main Fruitland Coal		0.00	250.55	
3,133.8	2,853.0	Base Main Fruitland Coal		0.00	250.55	
3,142.8	2,861.0	Inter tongue ss		0.00	250.55	
3,216.8	2,926.0	Pictured Cliffs		0.00	250.55	

Checked By: _____

Approved By: _____

Date: _____