

Reservoir Development

Drilling & Measurements (Anadrill)

4301 SW 44th St

Oklahoma City, Oklahoma 73119 USA

Phone: (405) 682-2284

Fax: (405) 682-3937

August 30, 2013

Cimarex

600 N MARIENFELD STREET SUITE 600

MIDLAND, TX 79701



Re:

CLIENT: Cimarex

WELL: Forty Niner Ridge 25 Federal 1H

FIELD: 015 G-06 S2330360; B.S.

RIG: Noram 23

COUNTY: Eddy

API NO: 30-015-41388

JOB NO: 13MLD0235

23 T23S R30E 25S FSL & 250 FEL
N 32.28392 W 103.84378

Enclosed, please find the original copy of the survey performed on the referenced well by Drilling & Measurements, a division of Schlumberger Technology Corporation.

Other information required by your office is as follows.

<u>Name & Title of Surveyor</u>	<u>Drainhole Number</u>	<u>Surveyed Depths</u>	<u>Dates Performed</u>	<u>Type of Survey</u>
Robert Hargrave MWD	Forty Niner Ridge 25 Federal 1H Original Hole	3922.00 Ft to 15024.00 Ft	June 8, 2013 to June 29, 2013	SlimPulse

If any other information is required, please contact the undersigned at the above letterhead and phone number.

Sincerely,

Jasem Alharer

Field Service Manager

Reservoir Development

Drilling & Measurements (Anadrill)

4301 SW 44th St

Oklahoma City, Oklahoma 73119 USA

Phone: (405) 682-2284

Fax: (405) 682-3937

Well Reference:

23 T23S R30E 255 FSL & 250 FEL

N 32.28392 W 103.84378

I, Robert Hargrave certify that; I am employed by Drilling & Measurements (formerly Anadrill), a division of Schlumberger Technology Corporation; that I did on the day(s) of June 08, 2013 through June 29, 2013, conduct or supervise the taking of the SlimPulse surveys from a depth of 3922.00 feet to a depth of 15024.00 feet referenced to driller's depth; that the data is true, correct, complete and within the limitations of the tool as set forth by Drilling & Measurements, a division of Schlumberger Technology Corporation; that I am authorized and qualified to make this report; that this survey was conducted at the request of Cimarex for the Forty Niner Ridge 25 Federal 1H Well (Original Hole) API No. 30-015-41388 and that I have reviewed this report and find that it conforms to the principals and procedures as set forth by Drilling & Measurements, a division of Schlumberger Technology Corporation.

By
Robert Hargrave
MWD

Nicholas Seproch
on behalf of Robert Hargrave

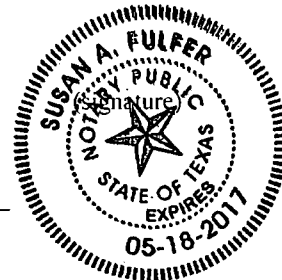
Subscribed and Sworn to before me this 29th day of August (month) 2013 (yr)

My Commission expires:

5/18/17

Susan A. Fulfer
Notary Public

Midland, TX
(County State)



SCHLUMBERGER
Survey Report

31-Jul-2013

Client..... Cimarex Energy Co.
Field..... 015 G-06 52330160; Bone Spring

Well..... Forty Niner Ridge 25 Federal 1H
API number..... 30-015-41388
Engineer..... Robert Hargrave

Spud date..... 28-May-13
Last survey date..... 29-Jun-13
Total accepted surveys... 152
MD of first survey..... 3922.00 ft
MD of last survey..... 15024.00 ft

County..... Eddy
State..... New Mexico
Rig..... Noram 23

Latitude..... 32° 17' 2.162" N
Longitude..... 103° 50' 37.5" W

--- Survey calculation methods ---
Method for positions... Minimum curvature
Method for DLS..... lubinski

--- Depth reference ---
Permanent datum..... MSL
Depth reference..... Driller's Depth
GI above permanent..... 3293.00
KB above permanent..... 3321.00
DF above permanent..... 3321.00

--- Vertical section origin ---
Latitude (+N/S)..... 0.00 ft
Departure (+E/W)..... 0.00 ft

--- Grid Coordinates ---
NAD27 Texas State Plane, Central Zone, US Feet
X..... 692633.70 ft
Y..... 467373.20 ft

Azimuth from Vsect Origin to target: 166.40 degrees

--- MWD Survey Reference Criteria ---

---Run1--- Calculation Date: 7-Jun-2013
Location G....: 998.94325 mgn Tolerance G....: 2.50 mgn
Location B....: 48394.59 nT Tolerance B....: 300.00 nT
Magnetic Dip: 60.1015 degrees Tolerance Dip: 0.45 degrees

---Run2--- Calculation Date: 9-Jun-2013
Location G....: 998.94325 mgn Tolerance G....: 2.50 mgn
Location B....: 48393.89 nT Tolerance B....: 300.00 nT
Magnetic Dip: 60.1013 degrees Tolerance Dip: 0.45 degrees

---Run3--- Calculation Date: 9-Jun-2013
Location G....: 998.94325 mgn Tolerance G....: 2.50 mgn
Location B....: 48393.89 nT Tolerance B....: 300.00 nT
Magnetic Dip: 60.1013 degrees Tolerance Dip: 0.45 degrees

---Run4--- Calculation Date: 13-Jun-2013
Location G....: 998.94325 mgn Tolerance G....: 2.50 mgn
Location B....: 48392.49 nT Tolerance B....: 300.00 nT
Magnetic Dip: 60.101 degrees Tolerance Dip: 0.45 degrees

---Run5--- Calculation Date: 15-Jun-2013
Location G....: 998.94325 mgn Tolerance G....: 2.50 mgn
Location B....: 48391.79 nT Tolerance B....: 300.00 nT
Magnetic Dip: 60.1008 degrees Tolerance Dip: 0.45 degrees

---Run6--- Calculation Date: 16-Jun-2013
Location G....: 998.94325 mgn Tolerance G....: 2.50 mgn
Location B....: 48391.45 nT Tolerance B....: 300.00 nT
Magnetic Dip: 60.1007 degrees Tolerance Dip: 0.45 degrees

---Run7--- Calculation Date: 19-Jun-2013
Location G....: 998.94325 mgn Tolerance G....: 2.50 mgn
Location B....: 48390.39 nT Tolerance B....: 300.00 nT
Magnetic Dip: 60.1004 degrees Tolerance Dip: 0.45 degrees

---Run8--- Calculation Date: 20-Jun-2013
Location G....: 998.94325 mgn Tolerance G....: 2.50 mgn
Location B....: 48390.04 nT Tolerance B....: 300.00 nT
Magnetic Dip: 60.1003 degrees Tolerance Dip: 0.45 degrees

---Run9--- Calculation Date: 23-Jun-2013
Location G....: 998.94325 mgn Tolerance G....: 2.50 mgn
Location B....: 48389 nT Tolerance B....: 300.00 nT
Magnetic Dip: 60.1 degrees Tolerance Dip: 0.45 degrees

---Run10--- Calculation Date: 27-Jun-2013
Location G....: 998.94325 mgn Tolerance G....: 2.50 mgn
Location B....: 48387.59 nT Tolerance B....: 300.00 nT
Magnetic Dip: 60.0997 degrees Tolerance Dip: 0.45 degrees

---Run11--- Calculation Date: 28-Jun-2013
Location G....: 998.94325 mgn Tolerance G....: 2.50 mgn
Location B....: 48387.25 nT Tolerance B....: 300.00 nT
Magnetic Dip: 60.0996 degrees Tolerance Dip: 0.45 degrees

BGGM Model: 2012

---Run1---
Magnetic dec (+E/W).....: 7.58 degrees
Grid Conv (+E/W).....: 0.26 degrees
Total Azim Corr (+E/W).....: 7.32 degrees

---Run2---
Magnetic dec (+E/W).....: 7.5794 degrees
Grid Conv (+E/W).....: 0.2594 degrees
Total Azim Corr (+E/W).....: 7.32 degrees

---Run3---
Magnetic dec (+E/W).....: 7.5794 degrees
Grid Conv (+E/W).....: 0.2594 degrees
Total Azim Corr (+E/W).....: 7.32 degrees

---Run4---

Magnetic dec (+E/W):..... 7.5781 degrees
Grid Conv (+E/W):..... 0.2581 degrees
Total Azim Corr (+E/W):.. 7.32 degrees

-----Run5-----
Magnetic dec (+E/W):..... 7.5775 degrees
Grid Conv (+E/W):..... 0.2575 degrees
Total Azim Corr (+E/W):.. 7.32 degrees

-----Run6-----
Magnetic dec (+E/W):..... 7.5772 degrees
Grid Conv (+E/W):..... 0.2572 degrees
Total Azim Corr (+E/W):.. 7.32 degrees

-----Run7-----
Magnetic dec (+E/W):..... 7.5762 degrees
Grid Conv (+E/W):..... 0.2662 degrees
Total Azim Corr (+E/W):.. 7.31 degrees

-----Run8-----
Magnetic dec (+E/W):..... 7.5759 degrees
Grid Conv (+E/W):..... 0.2659 degrees
Total Azim Corr (+E/W):.. 7.31 degrees

-----Run9-----
Magnetic dec (+E/W):..... 7.5749 degrees
Grid Conv (+E/W):..... 0.2649 degrees
Total Azim Corr (+E/W):.. 7.31 degrees

-----Run10-----
Magnetic dec (+E/W):..... 7.5737 degrees
Grid Conv (+E/W):..... 0.2637 degrees
Total Azim Corr (+E/W):.. 7.31 degrees

-----Run11-----
Magnetic dec (+E/W):..... 7.5734 degrees
Grid Conv (+E/W):..... 0.2634 degrees
Total Azim Corr (+E/W):.. 7.31 degrees

Accepted for record
NMOC

Survey Correction Index Description

0 = Uncorrected 1 = Sag Corrected
2 = DMAG Corrected 3 = Sag + DMAG Corrected

Survey List															
Seq	MD (ft)	Ind (deg)	Azim (deg)	Course (ft)	TVD (ft)	V Sec	N/S (ft)	E/W (ft)	Closure (ft)	at Azi (deg)	DIS (deg/100ft)	Tool	Correction		
1	0.00	0.00	0.00	999.25	0.00	0.00	0.00	0.00	0	90.00	0.00	TIP	0		
2	100.00	0.80	203.25	100.00	100.00	0.56	-0.64	-0.28	0.7	203.25	0.80	GyroTool	0		
3	200.00	0.96	206.28	100.00	199.98	1.76	-2.03	-0.92	2.23	204.39	0.17	GyroTool	0		
4	300.00	0.88	210.18	100.00	199.97	2.96	-3.45	-1.68	3.84	205.96	0.10	GyroTool	0		
5	400.00	0.06	234.36	100.00	399.97	3.53	-4.14	-2.11	4.65	206.96	0.83	GyroTool	0		
6	555.90	0.06	111.51	155.90	555.87	3.61	-4.22	-2.10	4.71	206.43	0.07	GyroTool	0		
7	650.60	0.10	115.87	94.70	650.57	3.69	-4.28	-1.98	4.71	204.82	0.04	GyroTool	0		
8	745.30	0.08	141.68	94.70	745.27	3.80	-4.36	-1.86	4.74	203.11	0.05	GyroTool	0		
9	840.90	0.05	72.29	94.70	839.97	3.86	-4.40	-1.78	4.75	203.04	0.08	GyroTool	0		
10	934.70	0.06	68.62	94.70	934.67	3.85	-4.37	-1.70	4.69	201.21	0.01	GyroTool	0		
11	1029.40	0.07	71.95	94.70	1029.37	3.84	-4.34	-1.59	4.62	200.18	0.01	GyroTool	0		
12	1124.10	0.07	72.86	94.70	1124.07	3.83	-4.30	-1.48	4.55	199.02	0.00	GyroTool	0		
13	1218.80	0.07	82.66	94.70	1218.77	3.84	-4.28	-1.37	4.49	197.76	0.01	GyroTool	0		
14	1313.50	0.05	68.84	94.70	1313.47	3.84	-4.26	-1.28	4.44	196.67	0.03	GyroTool	0		
15	1408.30	0.08	149.62	94.80	1408.27	3.90	-4.30	-1.20	4.47	195.63	0.09	GyroTool	0		
16	1503.00	0.09	114.87	94.70	1502.97	4.01	-4.39	-1.10	4.52	194.10	0.05	GyroTool	0		
17	1597.70	0.09	89.03	94.70	1597.67	4.07	-4.42	-0.96	4.52	192.26	0.04	GyroTool	0		
18	1692.40	0.09	103.07	94.70	1692.37	4.12	-4.43	-0.81	4.51	190.40	0.02	GyroTool	0		
19	1787.10	0.08	113.73	94.70	1787.07	4.19	-4.48	-0.68	4.53	188.64	0.02	GyroTool	0		
20	1881.80	0.07	120.33	94.70	1881.77	4.27	-4.53	-0.57	4.57	187.17	0.01	GyroTool	0		
21	1976.50	0.07	121.55	94.70	1976.47	4.35	-4.59	-0.47	4.62	185.85	0.00	GyroTool	0		
22	2071.20	0.06	102.98	94.70	2071.17	4.42	-4.63	-0.37	4.65	184.60	0.02	GyroTool	0		
23	2165.90	0.06	111.12	94.70	2165.87	4.47	-4.66	-0.28	4.67	183.42	0.01	GyroTool	0		
24	2260.60	0.09	97.80	94.70	2260.57	4.52	-4.69	-0.16	4.69	181.94	0.04	GyroTool	0		
25	2355.40	0.10	83.70	94.80	2355.37	4.56	-4.69	0.00	4.69	180.03	0.03	GyroTool	0		
26	2450.10	0.03	14.04	94.70	2450.07	4.55	-4.66	0.09	4.66	178.95	0.10	GyroTool	0		
27	2544.80	0.10	76.99	94.70	2544.77	4.53	-4.62	0.17	4.62	177.87	0.10	GyroTool	0		
28	2639.50	0.11	57.44	94.70	2639.47	4.50	-4.55	0.33	4.56	175.86	0.04	GyroTool	0		
29	2734.20	0.09	50.37	94.70	2734.17	4.44	-4.45	0.46	4.48	174.06	0.02	GyroTool	0		
30	2828.90	0.10	41.28	94.70	2828.87	4.36	-4.34	0.57	4.38	172.46	0.02	GyroTool	0		
31	2923.60	0.14	38.82	94.70	2923.57	4.24	-4.19	0.70	4.25	170.49	0.04	GyroTool	0		
32	3018.30	0.15	18.64	94.70	3018.27	4.06	-3.98	0.81	4.07	168.45	0.05	GyroTool	0		
33	3113.00	0.11	49.60	94.70	3112.97	3.92	-3.81	0.92	3.92	166.37	0.08	GyroTool	0		
34	3207.70	0.10	30.64	94.70	3207.66	3.82	-3.68	1.03	3.82	164.29	0.04	GyroTool	0		
35	3302.50	0.10	42.30	94.80	3302.46	3.71	-3.54	1.13	3.72	162.28	0.02	GyroTool	0		
36	3397.20	0.09	64.17	94.70	3397.16	3.65	-3.45	1.25	3.67	160.02	0.04	GyroTool	0		
37	3491.90	0.06	54.71	94.70	3491.86	3.61	-3.39	1.36	3.65	158.11	0.03	GyroTool	0		
38	3586.60	0.09	86.78	94.70	3586.56	3.61	-3.36	1.48	3.67	156.25	0.05	GyroTool	0		
39	3681.30	0.10	47.36	94.70	3681.26	3.58	-3.30	1.61	3.67	153.94	0.07	GyroTool	0		
40	3776.00	0.02	97.07	94.70	3775.96	3.55	-3.24	1.69	3.66	152.48	0.09	GyroTool	0		
41	3807.00	0.05	130.95	31.00	3806.96	3.56	-3.25	1.70	3.67	152.34	0.11	GyroTool	0		
42	3922.00	0.28	152.07	115.00	3921.96	3.87	-3.53	1.87	4	152.06	0.20	SlimPulse	0		
43	4017.00	0.27	116.18	95.00	4016.96	4.24	-3.83	2.18	4.41	150.36	0.18	SlimPulse	0		
44	4111.00	0.22	133.32	94.00	4110.96	4.53	-4.05	2.51	4.77	148.24	0.09	SlimPulse	0		
45	4187.00	0.20	158.17	76.00	4186.96	4.78	-4.28	2.67	5.04	148.07	0.12	SlimPulse	0		
46	4279.00	0.35	174.48	92.00	4278.96	5.22	-4.71	2.75	5.45	149.69	0.19	SlimPulse	0		
47	4374.00	0.43	178.53	95.00	4373.96	5.86	-5.36	2.79	6.04	152.50	0.09	SlimPulse	0		
48	4469.00	0.51	180.70	95.00	4468.95	6.82	-6.14	2.79	6.74	155.52	0.08	SlimPulse	0		
49	4564.00	0.54	174.33	94.00	4563.95	7.47	-6.95	2.83	7.5	157.85	0.06	SlimPulse	0		
50	4658.00	0.51	164.07	95.00	4657.95	8.24	-7.75	2.98	8.11	158.95	0.10	SlimPulse	0		
51	4753.00	0.46	160.49	95.00	4752.94	9.04	-8.52	3.23	9.11	159.25	0.06	SlimPulse	0		
52	4847.00	0.44	171.41	94.00	4846.94	9.77	-9.23	3.41	9.84	159.74	0.09	SlimPulse	0		
53	4942.00	0.49	179.18	95.00	4941.94	10.53	-10.00	3.47	10.58	160.87	0.08	SlimPulse	0		
54	5037.00	0.45	176.15	95.00	5036.94	11.29	-10.77	3.50	11.33	162.01	0.05	SlimPulse	0		
55	5132.00	0.41	184.87	95.00	5131.93	11.99	-11.49	3.49	12.01	163.08	0.08	SlimPulse	0		
56	5226.00	0.38	183.95	94.00	5225.93	12.61	-12.14	3.44	12.62	164.16	0.03	SlimPulse	0		
57	5321.00	0.48	192.49	95.00	5320.93	13.27	-12.84	3.34	13.27	165.44	0.12	SlimPulse	0		
58	5416.00	0.55	193.61	95.00	5415.92	14.03	-13.68	3.14	14.03	167.06	0.08	SlimPulse	0		
59	5510.00	0.54	184.12	94.00	5509.92	14.86	-14.56	3.00	14.86	168.34	0.10	SlimPulse	0		
60	5605.00	0.48	174.08	95.00	5604.92	15.67	-15.40	3.01	15.69	168.93	0.11	SlimPulse	0		
61	5699.00	0.50	157.34	94.00	5698.91	16.46	-16.16	3.21	16.48	168.77	0.15	SlimPulse	0		
62	5794.00	0.52	156.53	95.00	5793.91	17.30	-16.94	3.54	17.3	168.20	0.03	SlimPulse	0		
63	5889.00	0.70	148.78	95.00	5888.90	18.27	-17.83	4.01	18.27	167.32	0.20	SlimPulse	0		
64	5983.00	0.83	145.45	94.00	5982.89	19.45	-18.88	4.69	19.45	166.04	0.15	SlimPulse	0		
65	6078.00	1.00	134.95	95.00	6077.88	20.80	-20.03	5.67	20.82	164.20	0.25	SlimPulse	0		
66	6173.00	1.12	135.29	95.00	6172.87	22.30	-21.27	6.91	22.37	162.01	0.13	SlimPulse	0		
67	6268.00	1.13	138.84	95.00	6267.85	23.92	-22.63	8.17	24.07	160.14	0.07	SlimPulse	0		
68	6363.00	1.11	147.67	95.00	6362.83	25.62	-24.11	9.28	25.84	158.95	0.18	SlimPulse	0		
69	6458.00	1.07	155.21	95.00	6457.81	27.35	-25.60	10.14	27.62	158.46	0.16	SlimPulse	0		
70	6552.00	1.01	159.52	94.00	6551.80	29.03	-27.26	10.80	29.32	156.39	0.10	SlimPulse	0		
71	6647.00	1.09	159.69	95.00	6646.78	30.76	-28.89	11.40	31.06	158.46	0.09	SlimPulse	0		

72	6742.00	1.14	164.85	95.00	6741.76	32.60	-30.65	11.97	32.9	154.67	0.12	SlimPulse	0
73	6837.00	1.11	169.54	95.00	6836.75	34.47	-32.46	12.38	34.74	159.13	0.10	SlimPulse	0
74	6932.00	-1.21	176.99	95.00	6931.73	36.37	-34.37	12.60	36.61	159.87	0.19	SlimPulse	0
75	7026.00	1.19	178.62	94.00	7025.71	38.30	-36.34	12.67	38.49	160.77	0.04	SlimPulse	0
76	7121.00	1.22	179.81	95.00	7120.68	40.25	-38.34	12.70	40.38	161.67	0.04	SlimPulse	0
77	7215.00	1.30	168.42	94.00	7214.66	42.29	-40.38	12.92	42.4	162.26	0.28	SlimPulse	0
78	7310.00	1.35	159.34	95.00	7309.64	44.48	-42.49	13.53	44.59	162.33	0.23	SlimPulse	0
79	7405.00	1.18	162.94	95.00	7404.61	46.58	-44.46	14.21	46.68	162.28	0.20	SlimPulse	0
80	7499.00	1.09	170.60	94.00	7498.60	48.41	-46.27	14.64	48.53	162.44	0.19	SlimPulse	0
81	7594.00	0.87	171.34	95.00	7593.58	50.03	-48.17	14.90	50.13	162.71	0.23	SlimPulse	0
82	7688.00	0.34	182.50	94.00	7687.58	51.00	-48.85	14.99	51.1	162.94	0.57	SlimPulse	0
83	7783.00	0.65	278.91	95.00	7782.57	51.07	-49.05	14.44	51.13	163.59	0.81	SlimPulse	0
84	7878.00	1.43	288.51	95.00	7877.56	50.23	-48.59	12.78	50.24	165.26	0.84	SlimPulse	0
85	7973.00	2.02	277.50	95.00	7972.51	49.00	-47.99	10.00	49.02	168.24	0.71	SlimPulse	0
86	8068.00	1.95	268.54	95.00	8067.46	48.05	-47.82	6.72	48.29	172.00	0.34	SlimPulse	0
87	8162.00	2.04	253.99	94.00	8161.40	47.79	-48.32	3.52	48.44	175.84	0.54	SlimPulse	0
88	8257.00	2.26	251.11	95.00	8256.33	48.03	-49.39	0.12	49.39	179.86	0.26	SlimPulse	0
89	8352.00	2.34	267.68	95.00	8351.26	47.83	-50.07	-3.59	50.2	184.10	0.70	SlimPulse	0
90	8446.00	1.04	240.64	95.00	8445.20	47.67	-50.77	-7.32	51.29	188.21	1.13	SlimPulse	0
91	8541.00	1.12	224.60	97.00	8540.18	48.37	-51.88	-8.75	52.62	189.57	0.33	SlimPulse	0
92	8637.00	0.27	197.96	90.00	8637.17	49.66	-53.43	-9.66	54.29	190.25	0.60	SlimPulse	0
93	8732.00	0.63	133.31	96.00	8732.15	50.97	-54.76	-9.59	55.59	189.93	1.15	SlimPulse	0
94	8827.00	0.96	134.13	95.00	8826.15	52.08	-55.67	-8.64	56.33	188.82	0.35	SlimPulse	0
95	8922.00	0.92	129.04	93.00	8921.13	53.33	-56.68	-7.50	57.18	187.53	0.10	SlimPulse	0
96	9017.00	2.14	108.73	97.00	9016.10	54.92	-57.76	-5.18	57.99	185.12	1.35	SlimPulse	0
97	9112.00	3.06	101.33	90.00	9111.07	55.56	-58.09	-3.86	58.22	183.80	3.28	SlimPulse	0
98	9207.00	3.64	94.07	32.00	9206.10	56.23	-58.33	-2.01	58.37	181.97	2.22	SlimPulse	0
99	9302.00	4.44	86.59	32.00	9301.93	56.75	-58.33	0.24	58.33	179.77	3.01	SlimPulse	0
100	9397.00	6.33	88.45	35.00	9396.78	57.40	-58.20	3.52	58.31	176.54	5.41	SlimPulse	2
101	9492.00	8.17	90.34	32.00	9491.52	58.31	-58.17	7.56	58.65	172.60	5.80	SlimPulse	2
102	9587.00	9.16	95.42	29.00	9586.18	59.10	-58.38	11.95	59.57	168.41	4.32	SlimPulse	2
103	9682.00	11.52	96.55	34.00	9681.62	61.55	-58.96	18.05	61.66	162.98	6.74	SlimPulse	2
104	9777.00	14.22	98.70	32.00	9776.82	64.14	-59.91	25.11	64.96	157.26	8.57	SlimPulse	2
105	9872.00	16.32	99.11	29.00	9871.79	67.06	-61.10	32.65	69.28	151.88	7.25	SlimPulse	2
106	9967.00	19.28	98.37	32.00	9966.26	70.78	-62.58	42.32	75.55	145.93	9.28	SlimPulse	2
107	10062.00	21.88	99.88	32.00	10061.21	75.13	-64.37	53.42	83.65	140.31	8.29	SlimPulse	2
108	10157.00	24.37	100.49	29.00	10156.88	79.73	-66.39	64.63	92.65	135.77	8.63	SlimPulse	2
109	10252.00	27.09	101.35	34.00	10251.51	85.86	-69.19	79.12	105.11	131.17	8.07	SlimPulse	2
110	10347.00	29.71	102.58	31.00	10346.77	92.22	-72.25	93.54	118.2	127.68	8.66	SlimPulse	2
111	10442.00	31.36	102.62	30.00	10441.61	98.95	-75.58	108.42	132.16	124.88	5.50	SlimPulse	2
112	10537.00	33.89	102.36	33.00	10536.40	106.77	-79.42	125.79	148.76	122.27	7.68	SlimPulse	2
113	10632.00	36.51	103.76	34.00	10631.11	115.62	-83.88	144.97	167.49	120.06	9.20	SlimPulse	2
114	10727.00	39.17	105.23	28.00	10726.06	123.81	-88.24	161.80	184.3	118.61	11.06	SlimPulse	2
115	10822.00	39.35	107.12	34.00	10821.25	134.57	-94.28	182.61	205.51	117.31	3.86	SlimPulse	2
116	10917.00	39.52	110.05	32.00	10916.97	145.40	-100.75	201.88	225.62	116.52	5.84	SlimPulse	2
117	11012.00	39.75	111.26	28.00	11011.53	155.45	-107.06	218.59	243.4	116.09	2.88	SlimPulse	2
118	11107.00	40.90	113.81	33.00	11106.69	168.05	-115.24	238.31	264.71	115.81	6.09	SlimPulse	2
119	11202.00	43.01	115.32	33.00	11201.23	181.68	-124.42	258.37	286.76	115.71	7.08	SlimPulse	2
120	11297.00	44.76	117.46	26.00	11296.97	193.27	-132.43	274.51	304.78	115.75	8.82	SlimPulse	0
121	11392.00	48.25	120.43	35.00	11391.66	210.44	-144.73	296.71	330.13	116.00	11.71	SlimPulse	0
122	11487.00	50.81	123.90	33.00	11486.49	228.43	-158.10	317.94	355.08	116.44	11.16	SlimPulse	0
123	11582.00	54.30	126.20	29.00	11581.11	245.72	-171.33	338.78	377.86	116.96	13.59	SlimPulse	0
124	11677.00	58.46	129.07	36.00	11676.04	269.10	-189.65	360.50	407.34	117.75	13.30	SlimPulse	0
125	11772.00	61.78	132.25	31.00	11771.49	290.92	-207.16	380.88	433.57	118.54	13.91	SlimPulse	0
126	11867.00	64.62	135.22	29.00	11866.57	312.70	-225.06	399.57	458.59	119.39	13.40	SlimPulse	0
127	11962.00	68.47	138.95	34.00	11961.10	339.90	-247.90	420.79	488.38	120.50	15.15	SlimPulse	0
128	12057.00	71.99	141.98	32.00	12056.93	366.97	-271.12	439.94	516.78	121.64	14.15	SlimPulse	0
129	12152.00	74.89	144.47	28.00	12151.91	391.64	-292.62	456.01	541.82	122.69	13.43	SlimPulse	0
130	12247.00	78.22	146.22	34.00	12246.82	422.50	-319.82	474.80	572.47	123.96	10.99	SlimPulse	0
131	12342.00	81.19	148.35	32.00	12341.53	452.24	-346.31	491.82	601.51	125.15	11.37	SlimPulse	0
132	12437.00	84.62	150.55	29.00	12436.62	479.70	-371.03	506.41	627.78	126.23	8.58	SlimPulse	0
133	12532.00	87.00	153.04	94.00	12531.20	506.84	-453.11	550.43	712.94	129.46	2.71	SlimPulse	0
134	12627.00	80.81	151.71	56.00	12626.35	534.56	-502.12	576.10	764.25	131.08	3.17	SlimPulse	0
135	12722.00	84.61	153.47	33.00	12721.47	565.05	-530.83	591.60	794.84	131.90	0.71	SlimPulse	0
136	12817.00	82.59	150.98	27.00	12816.65	600.85	-554.25	604.47	820.11	132.52	8.28	SlimPulse	0
137	12912.00	86.90	150.66	36.00	12911.82	715.38	-585.55	621.95	854.22	133.27	10.90	SlimPulse	0
138	13007.00	90.24	150.44	31.00	13006.59	745.19	-612.54	637.19	883.86	133.87	10.79	SlimPulse	0
139	13102.00	92.27	151.23	28.00	13101.97	772.16	-636.98	650.83	910.67	134.38	7.79	SlimPulse	0
140	13197.00	94.03	153.86	35.00	13196.05	806.08	-667.99	666.94	943.94	135.04	9.01	SlimPulse	0
141	13292.00	95.41	156.38	30.00	13291.58	835.40	-695.11	679.52	972.07	135.65	9.57	SlimPulse	0
142	13387.00	96.31	159.13	30.00	13386.52	864.90	-722.73	690.81	999.78	136.29	9.60	SlimPulse	0
143	13482.00	93.82	160.56	33.00	13481.61	897.55	-753.58	702.14	1029.99	137.02	8.69	SlimPulse	0
144	13577.00	92.30	161.10	32.00	13576.30	929.36	-783.76	712.63	1059.3	137.77	5.01	SlimPulse	0
145	13672.00	92.00	160.83	30.00	13671.71	959.21	-812.13	721.32	1086.88	138.35	1.00	SlimPulse	0
146	13767.00	91.93	160.67	33.00	13766.64	992.04	-843.30	731.10	1117.4	139.00	1.53	SlimPulse	0
147	13862.00	91.93	161.83	32.00	13861.57	1023.89	-873.59	743.38	1147.07	139.60	3.60	SlimPulse	0
148	13957.00	91.17	162.96	30.00	13956.76	1053.81	-902.17	752.45	1174.77	140.17	4.53	SlimPulse	0
149	14052.00	90.03	164.06	94.00	14051.77	1147.68	-992.30	779.13	1261.62	141.86	1.68	SlimPulse	0
150	14147.00	89.79	164.33	95.00	14146.91	1242.61	-1083.70	805.01	1349.98	143.39	0.38	SlimPulse	0
151	14242.00	90.34	164.26	95.00	14241.80	1337.54	-1175.15	830.73	1439.13	144.74	0.58	SlimPulse	0
152	14337.00	91.38	165.65	93.00	14336.40	1430.50	-1264.95	854.86	1526.73	145.95	1.85	SlimPulse	0
153	14432.00	91.75	168.78	95.00	14431.54	1525.44	-1357.55	875.88	1615.58	147.17	3.32	SlimPulse	0
154	14527.00	91.89	169.40	96.00	14526.75	1621.29	-1451.77	894.04	1704.97	148.37	0.66	SlimPulse	0
155	14622.00	91.72	170.74	70.00	14621.55	1691.11	-1520.68	906.10	1770.17	149.21	1.53	SlimPulse	0
156	14717.00	91.83	172.07	95.00	14716.87	1785.78	-1614.41	921.28	1858.79	150.29	0.46	SlimPulse	0
157	14812.00	92.30	171.14	94.00									