

Reservoir Development

PathFinder, a Schlumberger Company
9200 West Reno Avenue
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Phone: (405) 789-1515
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PATHFINDER
A Schlumberger Company

15-39824

June 29, 2014

Cimarex
600 N MARIENFELD STREET SUITE 600

MIDLAND, TX 79701

Re:

Sec 11, T19S, R30E Eddy NM
N 32.67916 W 103.94509

CLIENT: Cimarex Energy Co.
WELL: Crescent Hale 10 Federal 01H
FIELD: Benson; Bone Spring
RIG: Noram 26
COUNTY: Eddy
API NO: 30-015-39824
JOB NO: 14MLD0363

Enclosed, please find the original copy of the survey performed on the referenced well by PathFinder, 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>
De'Jon Douglas MWD	Crescent Hale 10 Federal 01H Original Hole	8114.00 Ft to 15137.00 Ft	June 22, 2014 to June 28, 2014	SlimPulse

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

Joseph Hogan
Field Service Manager

Reservoir Development

PathFinder, a Schlumberger Company
9200 West Reno Avenue
Oklahoma City, Oklahoma 73127 USA
Phone: (405) 789-1515
Fax: (405) 789-1519



Well Reference:

Sec 11, T19S, R30E Eddy NM
N 32.67916 W 103.94509

I, De'Jon Douglas certify that: I am employed by PathFinder, a division of Schlumberger Technology Corporation; that I did on the day(s) of June 22, 2014 through June 28, 2014, conduct or supervise the taking of the SlimPulse surveys from a depth of 8114.00 feet to a depth of 15137.00 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 Energy Co. for the Crescent Hale 10 Federal 01H Well (Original Hole) API No. 30-015-39824 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
De'Jon Douglas
MWD

[Signature]
on behalf of De'Jon Douglas

Subscribed and Sworn to before me this 23rd day of July (month) 2014 (yr)

My Commission expires:

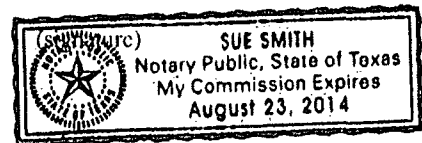
Aug 23, 2014

[Signature]

Notary Public

Midland Tx

(County State)



SCHLUMBERGER

Survey Report

30-Sep-2014

Client.....: Cimarex Energy Co.
Field.....: Benson, Bone Spring

Well.....: Crescent Hale 10 Federal
API number.....: 30-015-39824
Engineer.....: D. Douglas

County.....: Eddy
State.....: Texas
Rig.....: Noram 26

Spud date.....: 9-Jun-14
Last survey date.....: 28-Jun-14
Total accepted surveys.....: 93
MD of first survey.....: 8114.00 ft
MD of last survey.....: 15137.00 ft

Latitude.....: 32° 40' 44.984" N
Longitude.....: 103° 56' 42.315" W

----- Survey calculation methods-----

Method for positions...: Minimum curvature
Method for DLS.....: Lubinski

----- Depth reference -----

Permanent datum.....: MSL
Depth reference.....: Driller's Depth
GL above permanent.....: 3400.00
KB above permanent.....: 3425.00
DF above permanent.....: 3425.00

----- 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.....: 660793.86 ft
Y.....: 611028.89 ft

Azimuth from Vsect Origin to target: 274.67 degrees

-----MWD Survey Reference Criteria-----

-----Run1----- Calculation Date: 22-Jun-2014
Location G.....: 998.63244 mgn Tolerance G.....: 2.50 mgn
Location B.....: 48517.9 nT Tolerance B.....: 300.00 nT
Magnetic Dip: 60.46 degrees Tolerance Dip: 0.45 degrees

-----Run2----- Calculation Date: 24-Jun-2014
Location G.....: 998.63244 mgn Tolerance G.....: 2.50 mgn
Location B.....: 48517.9 nT Tolerance B.....: 300.00 nT
Magnetic Dip: 60.46 degrees Tolerance Dip: 0.45 degrees

BGGM Model: 2014

-----Run1-----

Magnetic dec (+E/-W).....: 7.59 degrees
Grid Conv (+E/-W).....: 0.21 degrees
Total Azim Corr (+E/-W).....: 7.38 degrees

-----Run2-----

Magnetic dec (+E/-W).....: 7.59 degrees
Grid Conv (+E/-W).....: 0.21 degrees
Total Azim Corr (+E/-W).....: 7.38 degrees

-----Survey Correction Index Description-----

0 = Uncorrected 1 = Sag Corrected

2 = DMAG Corrected 3 = Sag + DMAG Corrected

===== Survey List =====													
Seq	MD (ft)	Incl (deg)	Azim (deg)	Course (ft)	TVD (ft)	V Sec (ft)	N/-S (ft)	E/-W (ft)	Closure (ft)	at Azi (deg)	DLS (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	0.44	356.17	100.00	100.00	0.06	0.38	-0.03	0.38	356.17	0.44	GyroTool	0
3	200.00	0.54	350.34	100.00	200.00	0.23	1.23	-0.13	1.24	353.95	0.11	GyroTool	0
4	300.00	0.38	335.95	100.00	299.99	0.51	2.00	-0.34	2.03	350.22	0.20	GyroTool	0
5	400.00	0.21	332.61	100.00	399.99	0.76	2.46	-0.56	2.53	347.10	0.17	GyroTool	0
6	500.00	0.39	321.48	100.00	499.99	1.09	2.89	-0.86	3.02	343.44	0.19	GyroTool	0
7	600.00	0.35	303.62	100.00	599.99	1.59	3.33	-1.33	3.58	338.27	0.12	GyroTool	0
8	700.00	0.32	308.90	100.00	699.99	2.09	3.67	-1.80	4.09	333.91	0.04	GyroTool	0
9	800.00	0.46	311.76	100.00	799.98	2.64	4.12	-2.32	4.72	330.64	0.14	GyroTool	0
10	900.00	0.39	328.63	100.00	899.98	3.16	4.67	-2.79	5.44	329.15	0.14	GyroTool	0
11	1000.00	0.47	326.53	100.00	999.98	3.62	5.31	-3.19	6.19	328.95	0.08	GyroTool	0
12	1100.00	0.47	329.13	100.00	1099.97	4.11	6.00	-3.63	7.01	328.82	0.02	GyroTool	0
13	1170.30	0.51	331.59	70.30	1170.27	4.45	6.52	-3.93	7.61	328.94	0.06	GyroTool	0
14	1264.70	0.45	338.39	94.40	1264.67	4.84	7.24	-4.26	8.4	329.49	0.09	GyroTool	0

15	1359.10	0.45	342.69	94.40	1359.07	5.14	7.94	-4.51	9.13	330.38	0.04	GyroTool	0
16	1453.50	0.43	354.59	94.40	1453.46	5.34	8.64	-4.66	9.82	331.69	0.10	GyroTool	0
17	1547.90	0.41	11.37	94.40	1547.86	5.37	9.33	-4.62	10.41	333.64	0.13	GyroTool	0
18	1642.30	0.42	24.59	94.40	1642.26	5.21	9.97	-4.41	10.9	336.13	0.10	GyroTool	0
19	1736.70	0.43	25.95	94.40	1736.66	4.96	10.60	-4.11	11.37	338.80	0.02	GyroTool	0
20	1831.10	0.44	30.34	94.40	1831.05	4.68	11.24	-3.77	11.85	341.43	0.04	GyroTool	0
21	1925.50	0.52	31.51	94.40	1925.45	4.33	11.91	-3.37	12.38	344.22	0.09	GyroTool	0
22	2019.90	0.56	30.79	94.40	2019.85	3.93	12.68	-2.91	13	347.08	0.04	GyroTool	0
23	2114.30	0.64	26.09	94.40	2114.24	3.53	13.55	-2.44	13.76	349.79	0.10	GyroTool	0
24	2208.70	0.70	20.87	94.40	2208.63	3.18	14.56	-2.00	14.69	352.17	0.09	GyroTool	0
25	2303.10	0.70	14.90	94.40	2303.03	2.92	15.65	-1.65	15.74	353.99	0.08	GyroTool	0
26	2397.50	0.73	16.83	94.40	2397.42	2.69	16.79	-1.33	16.84	355.48	0.04	GyroTool	0
27	2491.90	0.75	18.51	94.40	2491.81	2.41	17.95	-0.96	17.97	356.95	0.03	GyroTool	0
28	2586.30	0.81	14.59	94.40	2586.20	2.15	19.18	-0.59	19.19	358.23	0.09	GyroTool	0
29	2680.70	0.92	13.57	94.40	2680.59	1.92	20.56	-0.25	20.56	359.32	0.12	GyroTool	0
30	2775.10	1.00	13.22	94.40	2774.98	1.68	22.10	0.12	22.1	0.31	0.08	GyroTool	0
31	2869.50	1.01	13.13	94.40	2869.36	1.43	23.71	0.50	23.72	1.20	0.01	GyroTool	0
32	2963.90	0.95	11.16	94.40	2963.75	1.22	25.29	0.84	25.3	1.90	0.07	GyroTool	0
33	3058.30	1.00	8.46	94.40	3058.14	1.08	26.87	1.11	26.9	2.37	0.07	GyroTool	0
34	3152.70	1.04	10.30	94.40	3152.52	0.94	28.53	1.39	28.56	2.78	0.05	GyroTool	0
35	3247.10	1.06	13.02	94.40	3246.91	0.73	30.22	1.74	30.27	3.29	0.06	GyroTool	0
36	3341.50	1.14	10.59	94.40	3341.29	0.51	32.00	2.10	32.07	3.76	0.10	GyroTool	0
37	3435.90	1.22	13.28	94.40	3435.67	0.26	33.90	2.51	33.99	4.23	0.10	GyroTool	0
38	3530.30	1.19	12.45	94.40	3530.05	-0.02	35.83	2.95	35.96	4.71	0.04	GyroTool	0
39	3624.70	1.17	13.08	94.40	3624.43	-0.30	37.73	3.38	37.88	5.12	0.03	GyroTool	0
40	3719.10	1.31	13.41	94.40	3718.81	-0.60	39.72	3.85	39.91	5.53	0.15	GyroTool	0
41	3813.50	1.51	15.07	94.40	3813.18	-0.99	41.97	4.42	42.2	6.01	0.22	GyroTool	0
42	3907.90	1.54	16.11	94.40	3907.54	-1.47	44.39	5.10	44.68	6.55	0.04	GyroTool	0
43	4002.30	1.59	17.13	94.40	4001.91	-2.00	46.86	5.83	47.22	7.10	0.06	GyroTool	0
44	4096.70	1.63	18.52	94.40	4096.27	-2.60	49.38	6.65	49.83	7.67	0.06	GyroTool	0
45	4191.10	1.63	18.91	94.40	4190.63	-3.26	51.93	7.51	52.47	8.23	0.01	GyroTool	0
46	4285.50	1.65	22.05	94.40	4284.99	-3.99	54.46	8.45	55.11	8.82	0.10	GyroTool	0
47	4379.90	1.68	24.57	94.40	4379.35	-4.87	56.98	9.54	57.77	9.50	0.08	GyroTool	0
48	4474.30	1.72	28.52	94.40	4473.71	-5.91	59.48	10.79	60.45	10.28	0.13	GyroTool	0
49	4568.70	1.81	31.73	94.40	4568.07	-7.16	61.99	12.25	63.19	11.18	0.14	GyroTool	0
50	4663.10	2.03	32.85	94.40	4662.41	-8.63	64.66	13.94	66.15	12.17	0.24	GyroTool	0
51	4757.50	1.97	39.82	94.40	4756.76	-10.36	67.32	15.89	69.17	13.28	0.27	GyroTool	0
52	4851.90	2.18	49.06	94.40	4851.10	-12.55	69.74	18.28	72.1	14.69	0.42	GyroTool	0
53	4946.30	2.24	52.61	94.40	4945.43	-15.17	72.03	21.11	75.06	16.33	0.16	GyroTool	0
54	5040.70	2.13	54.19	94.40	5039.76	-17.88	74.18	23.99	77.97	17.92	0.13	GyroTool	0
55	5135.10	1.76	49.93	94.40	5134.10	-20.24	76.14	26.53	80.63	19.21	0.42	GyroTool	0
56	5229.50	0.57	36.88	94.40	5228.48	-21.52	77.45	27.92	82.33	19.82	1.28	GyroTool	0
57	5323.90	0.61	208.21	94.40	5322.88	-21.57	77.38	27.96	82.28	19.87	1.25	GyroTool	0
58	5418.30	0.63	204.41	94.40	5417.27	-21.19	76.47	27.51	81.27	19.79	0.05	GyroTool	0
59	5512.70	0.62	202.94	94.40	5511.67	-20.86	75.52	27.10	80.24	19.74	0.02	GyroTool	0
60	5607.10	0.80	195.12	94.40	5606.06	-20.58	74.42	26.73	79.07	19.75	0.22	GyroTool	0
61	5701.50	0.98	184.08	94.40	5700.45	-20.47	72.98	26.50	77.64	19.95	0.26	GyroTool	0
62	5795.90	1.00	178.83	94.40	5794.84	-20.56	71.35	26.46	76.09	20.34	0.10	GyroTool	0
63	5890.30	1.12	179.41	94.40	5889.22	-20.73	69.60	26.48	74.47	20.83	0.13	GyroTool	0
64	5984.70	0.77	198.81	94.40	5983.61	-20.66	68.08	26.29	72.98	21.11	0.50	GyroTool	0
65	6079.10	0.65	211.76	94.40	6078.00	-20.26	67.02	25.80	71.82	21.05	0.21	GyroTool	0
66	6173.50	0.51	232.02	94.40	6172.39	-19.71	66.31	25.19	70.93	20.80	0.26	GyroTool	0
67	6267.90	0.38	255.03	94.40	6266.79	-19.10	65.97	24.55	70.39	20.42	0.23	GyroTool	0
68	6362.30	0.37	298.89	94.40	6361.19	-18.53	66.04	23.98	70.26	19.96	0.30	GyroTool	0
69	6456.70	0.38	315.92	94.40	6455.59	-18.02	66.41	23.50	70.44	19.49	0.12	GyroTool	0
70	6551.10	0.28	330.82	94.40	6549.99	-17.65	66.83	23.17	70.74	19.12	0.14	GyroTool	0
71	6645.50	0.43	212.21	94.40	6644.39	-17.36	66.74	22.87	70.55	18.92	0.65	GyroTool	0
72	6739.90	1.01	204.25	94.40	6738.78	-16.92	65.68	22.34	69.37	18.78	0.62	GyroTool	0
73	6834.30	0.85	174.12	94.40	6833.17	-16.77	64.22	22.07	67.91	18.96	0.54	GyroTool	0
74	6928.70	0.56	123.78	94.40	6927.56	-17.30	63.27	22.52	67.16	19.59	0.69	GyroTool	0
75	7023.10	0.56	105.55	94.40	7021.95	-18.15	62.89	23.35	67.08	20.37	0.19	GyroTool	0
76	7117.50	0.52	90.77	94.40	7116.35	-19.03	62.76	24.22	67.27	21.11	0.15	GyroTool	0
77	7211.90	0.19	49.65	94.40	7210.75	-19.57	62.86	24.77	67.56	21.51	0.42	GyroTool	0
78	7306.30	1.17	204.94	94.40	7305.14	-19.35	62.08	24.48	66.74	21.52	1.42	GyroTool	0
79	7400.70	0.90	193.11	94.40	7399.53	-18.91	60.49	23.91	65.04	21.57	0.36	GyroTool	0
80	7495.10	0.96	206.94	94.40	7493.92	-18.50	59.06	23.38	63.52	21.60	0.25	GyroTool	0
81	7589.50	0.67	232.82	94.40	7588.31	-17.79	58.02	22.59	62.26	21.27	0.49	GyroTool	0
82	7683.90	0.55	239.20	94.40	7682.70	-17.01	57.46	21.76	61.44	20.74	0.15	GyroTool	0
83	7778.30	0.55	231.18	94.40	7777.10	-16.31	56.94	21.01	60.69	20.26	0.08	GyroTool	0
84	7872.70	0.69	213.81	94.40	7871.49	-15.70	56.18	20.34	59.75	19.91	0.25	GyroTool	0
85	7967.10	0.60	193.74	94.40	7965.89	-15.35	55.23	19.91	58.71	19.82	0.26	GyroTool	0
86	7998.50	0.44	163.75	31.40	7997.28	-15.37	54.96	19.91	58.45	19.91	0.99	GyroTool	0
87	8029.00	0.48	93.16	30.50	8027.78	-15.53	54.84	20.07	58.39	20.10	1.75	Extreme	0
88	8114.00	5.62	255.20	85.00	8112.66	-11.96	53.75	16.39	56.2	16.96	7.15	SlimPulse	0
89	8145.00	10.85	259.17	31.00	8143.33	-7.71	52.81	12.05	54.17	12.86	16.95	SlimPulse	0
90	8177.00	17.22	260.69	32.00	8174.36	-0.21	51.48	4.42	51.67	4.90	19.93	SlimPulse	0
91	8208.00	22.21	260.07	31.00	8203.53	9.92	49.73	-5.89	50.08	353.25	16.12	SlimPulse	0
92	8240.00	25.18	261.42	32.00	8232.83	22.40	47.67	-18.58	51.16	338.71	9.44	SlimPulse	0
93	8271.00	27.88	262.10	31.00	8260.56	35.89	45.69	-32.28	55.94	324.76	8.77	SlimPulse	0
94	8303.00	29.42	266.05	32.00	8288.65	50.97	44.12	-47.53	64.85	312.87	7.62	SlimPulse	0
95	8334.00	31.14	274.11	31.00	8315.43	66.52	44.17	-63.13	77.05	304.98	14.23	SlimPulse	0
96	8365.00	32.89	278.18	31.00	8341.72	82.94	45.94	-79.46	91.79	300.04	8.95	SlimPulse	0
97	8397.00	35.17	274.90	32.00	8368.24	100.83	47.97	-97.25	108.44	296.26	9.14	SlimPulse	0
98	8429.00	39.70	274.65	32.00	8393.64	120.28	49.59	-116.63	126.73	293.03	14.18	SlimPulse	0
99	8460.00	45.17	274.57	31.00	8416.51	141.19	51.26	-137.47	146.72	290.45	17.62	SlimPulse	0
100	8491.00	49.96	274.52	31.00	8437.42	164.06	53.08	-160.27	168.83	288.32	15.48	SlimPulse	0
101	8523.00	54.48	273.90	32.00	8457.02	189.34	54.93	-185.49	193.45	286.50	14.19	SlimPulse	0

102	8554.00	57.49	273.63	31.00	8474.36	215.03	56.61	-211.13	218.59	285.01	9.76	SlimPulse	0
103	8586.00	61.13	274.03	32.00	8490.69	242.55	58.45	-238.58	245.64	283.77	11.42	SlimPulse	0
104	8617.00	64.94	274.19	31.00	8504.74	270.17	60.43	-266.13	272.91	282.79	12.27	SlimPulse	0
105	8649.00	68.04	274.87	32.00	8517.50	299.51	62.75	-295.38	301.97	281.99	9.90	SlimPulse	0
106	8680.00	70.11	275.63	31.00	8528.57	328.46	65.40	-324.21	330.74	281.41	7.06	SlimPulse	0
107	8712.00	72.21	276.04	32.00	8538.91	358.74	68.48	-354.34	360.9	280.94	6.66	SlimPulse	0
108	8733.00	75.15	275.80	31.00	8547.62	388.48	71.55	-383.93	390.54	280.56	9.52	SlimPulse	0
109	8775.00	78.89	275.04	32.00	8559.80	419.65	74.49	-414.97	421.6	280.18	11.92	SlimPulse	0
110	8806.00	83.38	274.73	31.00	8559.58	450.28	77.10	-445.48	452.1	279.82	14.51	SlimPulse	0
111	8837.00	88.42	274.98	31.00	8561.80	481.19	79.45	-476.30	482.88	279.47	16.43	SlimPulse	0
112	8869.00	89.86	274.26	32.00	8562.30	513.18	81.75	-508.21	514.74	278.14	4.60	SlimPulse	0
113	8900.00	90.03	274.45	31.00	8562.30	544.18	84.10	-539.12	545.64	278.87	0.83	SlimPulse	0
114	8931.00	89.97	273.52	31.00	8562.30	575.18	86.25	-570.05	576.53	278.60	3.00	SlimPulse	0
115	9026.00	90.07	273.71	95.00	8562.28	670.16	92.25	-664.86	671.23	277.90	0.23	SlimPulse	0
116	9120.00	90.31	274.73	94.00	8561.51	764.16	99.17	-758.60	765.05	277.45	1.12	SlimPulse	0
117	9215.00	90.24	275.16	95.00	8561.51	859.15	107.36	-853.25	859.97	277.17	0.45	SlimPulse	0
118	9310.00	90.76	275.51	95.00	8560.68	954.14	116.19	-947.83	954.92	276.99	0.66	SlimPulse	0
119	9404.00	91.10	275.66	94.00	8559.16	1048.12	125.33	-1041.37	1048.89	276.86	0.40	SlimPulse	0
120	9498.00	91.31	276.94	94.00	8555.24	1236.97	146.91	-1229.09	1237.84	276.82	0.40	SlimPulse	0
121	9593.00	91.03	276.68	95.00	8553.58	1330.99	156.76	-1322.56	1331.81	276.76	1.40	SlimPulse	0
122	9687.00	91.00	275.36	94.00	8553.58	1425.91	164.24	-1417.25	1426.73	276.61	1.81	SlimPulse	0
123	9782.00	90.69	273.67	95.00	8552.18	1519.87	169.41	-1511.09	1520.56	276.40	1.14	SlimPulse	0
124	9876.00	90.96	272.63	94.00	8550.83	1519.87	174.16	-1605.96	1615.37	276.19	0.58	SlimPulse	0
125	9971.00	91.27	273.09	95.00	8548.97	1614.80	179.67	-1699.77	1709.24	276.03	0.60	SlimPulse	0
126	10065.00	91.45	273.63	94.00	8546.74	1708.75	186.03	-1793.52	1803.14	275.92	0.54	SlimPulse	0
127	10159.00	91.48	274.13	95.00	8541.95	1897.68	192.87	-1888.24	1898.07	275.83	0.07	SlimPulse	0
128	10254.00	91.41	274.13	95.00	8541.95	1991.65	200.12	-1981.99	1992.01	275.77	0.63	SlimPulse	0
129	10348.00	91.55	274.71	94.00	8539.52	2085.61	208.17	-2075.55	2085.97	275.73	0.45	SlimPulse	0
130	10442.00	91.58	275.13	94.00	8536.96	2274.54	216.89	-2263.69	2274.9	275.69	0.60	SlimPulse	0
131	10536.00	91.41	274.95	95.00	8532.11	2274.54	225.55	-2263.69	2274.9	275.69	0.93	SlimPulse	0
132	10631.00	91.48	274.07	94.00	8529.65	2368.50	232.94	-2357.36	2368.84	275.64	0.39	SlimPulse	0
133	10725.00	91.51	274.07	94.00	8527.17	2462.47	239.91	-2451.07	2462.79	275.59	0.39	SlimPulse	0
134	10819.00	91.51	274.44	94.00	8524.71	2557.43	248.19	-2545.68	2557.75	275.57	1.20	SlimPulse	0
135	10914.00	91.45	275.58	95.00	8520.26	2651.39	257.47	-2639.19	2651.72	275.57	0.22	SlimPulse	0
136	11008.00	91.55	275.75	94.00	8519.61	2746.34	266.77	-2733.69	2746.68	275.57	0.31	SlimPulse	0
137	11103.00	91.65	275.48	95.00	8516.93	2840.30	274.94	-2827.30	2840.63	275.55	1.05	SlimPulse	0
138	11197.00	91.62	274.50	94.00	8516.93	2934.25	281.22	-2921.05	2934.56	275.50	1.42	SlimPulse	0
139	11291.00	91.79	273.17	94.00	8514.62	3029.15	285.62	-3015.91	3029.4	275.41	1.12	SlimPulse	0
140	11386.00	90.96	272.14	95.00	8511.36	3122.96	287.84	-3109.85	3123.14	275.29	1.88	SlimPulse	0
141	11480.00	90.66	270.57	94.00	8509.36	3122.96	287.84	-3109.85	3123.14	275.29	1.88	SlimPulse	0
142	11574.00	90.41	268.92	94.00	8508.23	3216.60	287.42	-3203.84	3216.71	275.13	1.85	SlimPulse	0
143	11668.00	90.45	268.72	94.00	8507.53	3310.11	285.49	-3297.82	3310.15	274.95	0.21	SlimPulse	0
144	11763.00	90.38	269.16	95.00	8506.84	3404.63	283.60	-3392.80	3404.64	274.78	0.46	SlimPulse	0
145	11857.00	90.24	270.68	94.00	8506.34	3498.31	283.60	-3486.74	3498.31	274.65	1.62	SlimPulse	0
146	11951.00	90.34	273.05	94.00	8505.86	3592.19	286.66	-3580.74	3592.19	274.58	2.53	SlimPulse	0
147	12046.00	90.45	274.02	95.00	8505.31	3687.17	292.52	-3675.55	3687.17	274.55	1.02	SlimPulse	0
148	12140.00	90.45	274.15	94.00	8504.69	3781.16	299.21	-3769.31	3781.17	274.54	0.20	SlimPulse	0
149	12234.00	90.31	274.26	94.00	8504.07	3875.15	306.10	-3863.06	3875.16	274.53	0.19	SlimPulse	0
150	12329.00	90.41	275.29	95.00	8503.56	3970.15	314.00	-3957.72	3970.16	274.54	1.08	SlimPulse	0
151	12423.00	90.31	276.38	94.00	8502.97	4064.13	323.56	-4051.23	4064.13	274.57	1.17	SlimPulse	0
152	12518.00	90.45	275.98	95.00	8502.25	4159.09	333.80	-4145.68	4159.09	274.60	0.42	SlimPulse	0
153	12612.00	90.52	276.11	94.00	8501.46	4253.06	343.70	-4239.15	4253.06	274.64	0.16	SlimPulse	0
154	12706.00	90.58	274.85	94.00	8500.56	4347.05	352.68	-4332.72	4347.05	274.65	1.34	SlimPulse	0
155	12801.00	90.58	273.58	95.00	8499.59	4442.04	359.66	-4427.45	4442.04	274.64	1.34	SlimPulse	0
156	12895.00	90.52	272.80	94.00	8498.69	4536.00	364.97	-4521.30	4536	274.62	0.73	SlimPulse	0
157	12989.00	90.48	273.53	94.00	8497.87	4639.97	370.24	-4615.14	4639.97	274.59	0.67	SlimPulse	0
158	13084.00	90.58	274.27	95.00	8496.99	4724.95	376.70	-4709.92	4724.96	274.57	0.79	SlimPulse	0
159	13178.00	90.52	274.96	94.00	8496.08	4818.95	384.26	-4803.61	4818.96	274.57	0.74	SlimPulse	0
160	13273.00	91.10	276.34	95.00	8494.74	4913.92	393.61	-4898.14	4913.93	274.59	1.58	SlimPulse	0
161	13367.00	91.48	277.01	94.00	8492.63	5007.84	404.54	-4991.48	5007.84	274.63	0.81	SlimPulse	0
162	13461.00	91.45	276.95	94.00	8490.23	5101.73	415.95	-5084.75	5101.73	274.68	0.07	SlimPulse	0
163	13556.00	91.75	276.11	95.00	8487.58	5196.65	426.76	-5179.09	5196.65	274.71	0.94	SlimPulse	0
164	13650.00	91.72	275.25	94.00	8484.73	5290.59	436.06	-5272.59	5290.59	274.73	0.92	SlimPulse	0
165	13745.00	91.48	273.91	95.00	8482.08	5385.55	443.64	-5367.25	5385.55	274.73	1.43	SlimPulse	0
166	13839.00	92.03	273.16	94.00	8479.20	5479.48	449.43	-5461.02	5479.48	274.70	0.99	SlimPulse	0
167	13934.00	91.34	272.29	95.00	8476.40	5568.25	453.95	-5555.87	5574.39	274.67	1.17	SlimPulse	0
168	14028.00	90.34	271.21	94.00	8475.02	5668.25	456.83	-5649.81	5668.25	274.62	1.56	SlimPulse	0
169	14122.00	90.65	272.91	95.00	8473.17	5762.10	459.25	-5743.78	5762.11	274.57	0.65	SlimPulse	0
170	14217.00	90.58	273.66	94.00	8472.50	5857.02	463.10	-5838.69	5857.03	274.53	1.23	SlimPulse	0
171	14311.00	90.24	273.66	94.00	8472.50	5950.98	468.48	-5932.54	5951.01	274.52	0.88	SlimPulse	0
172	14406.00	90.34	274.31	95.00	8471.01	6045.98	475.08	-6027.31	6046	274.51	0.70	SlimPulse	0
173	14500.00	90.38	273.79	94.00	8471.42	6139.97	481.72	-6121.07	6140	274.50	0.56	SlimPulse	0
174	14595.00	90.34	275.00	95.00	8470.82	6234.96	489.00	-6215.79	6234.99	274.50	1.28	SlimPulse	0
175	14689.00	90.79	276.83	94.00	8469.89	6328.93	498.69	-6309.28	6328.95	274.52	2.00	SlimPulse	0
176	14784.00	91.07	278.35	95.00	8468.35	6423.79	511.23	-6403.43	6423.8	274.56	1.63	SlimPulse	0
177	14878.00	90.72	278.89	94.00	8466.88	6517.56	525.33	-6496.35	6517.56	274.62	0.68	SlimPulse	0
178	14973.00	90.93	279.48	95.00	8465.51	6612.25	540.50	-6590.13	6612.25	274.69	0.66	SlimPulse	0
179	15067.00	91.34	277.73	94.00	8463.26	6706.01	554.56	-6683.03	6706.02	274.74	1.88	SlimPulse	0
180	15137.00	91.37	275.28	70.00	8462.65	6775.95	562.49	-6752.57	6775.96	274.76	3.52	SlimPulse	0
181	15207.00	91.34	275.28	70.00	8460.62	6845.93	568.92	-6822.26	6845.93	274.77	0.01	SlimPulse Proj	7