Electronic Supplementary Material (ESI) for Dalton Transactions.

Synthetic and Structural Studies of Phosphine Coordinated Boronium Salts

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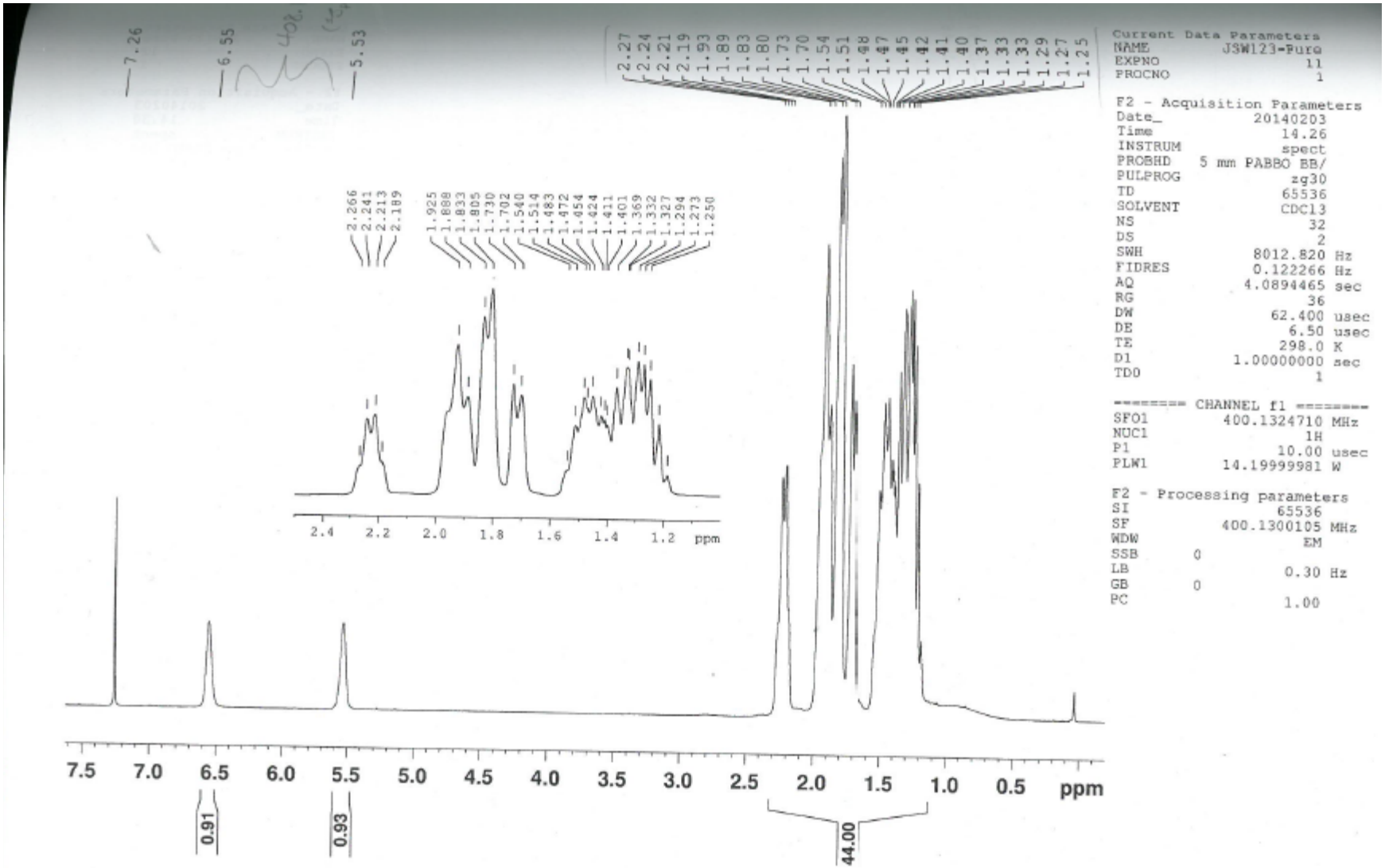
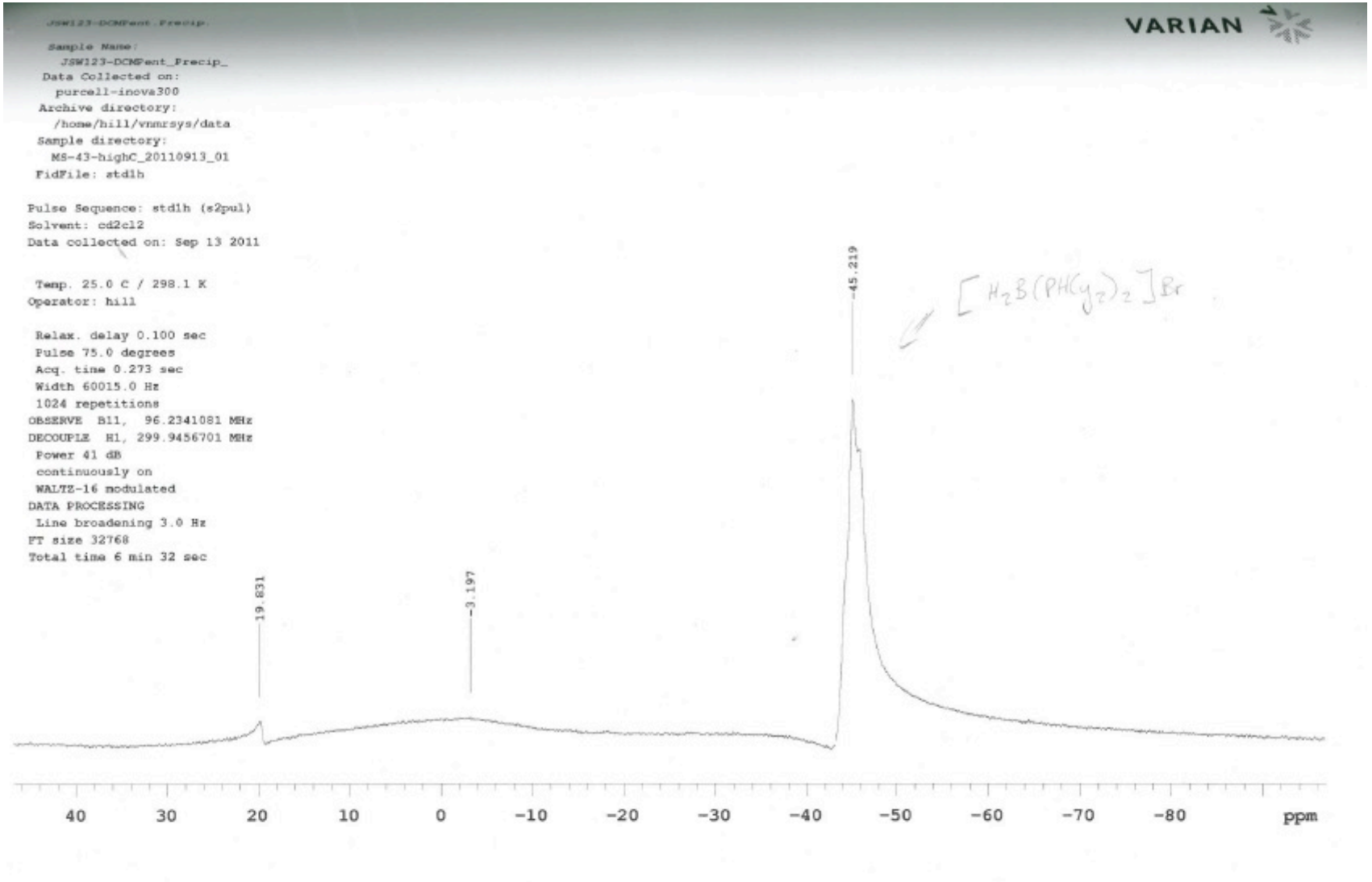
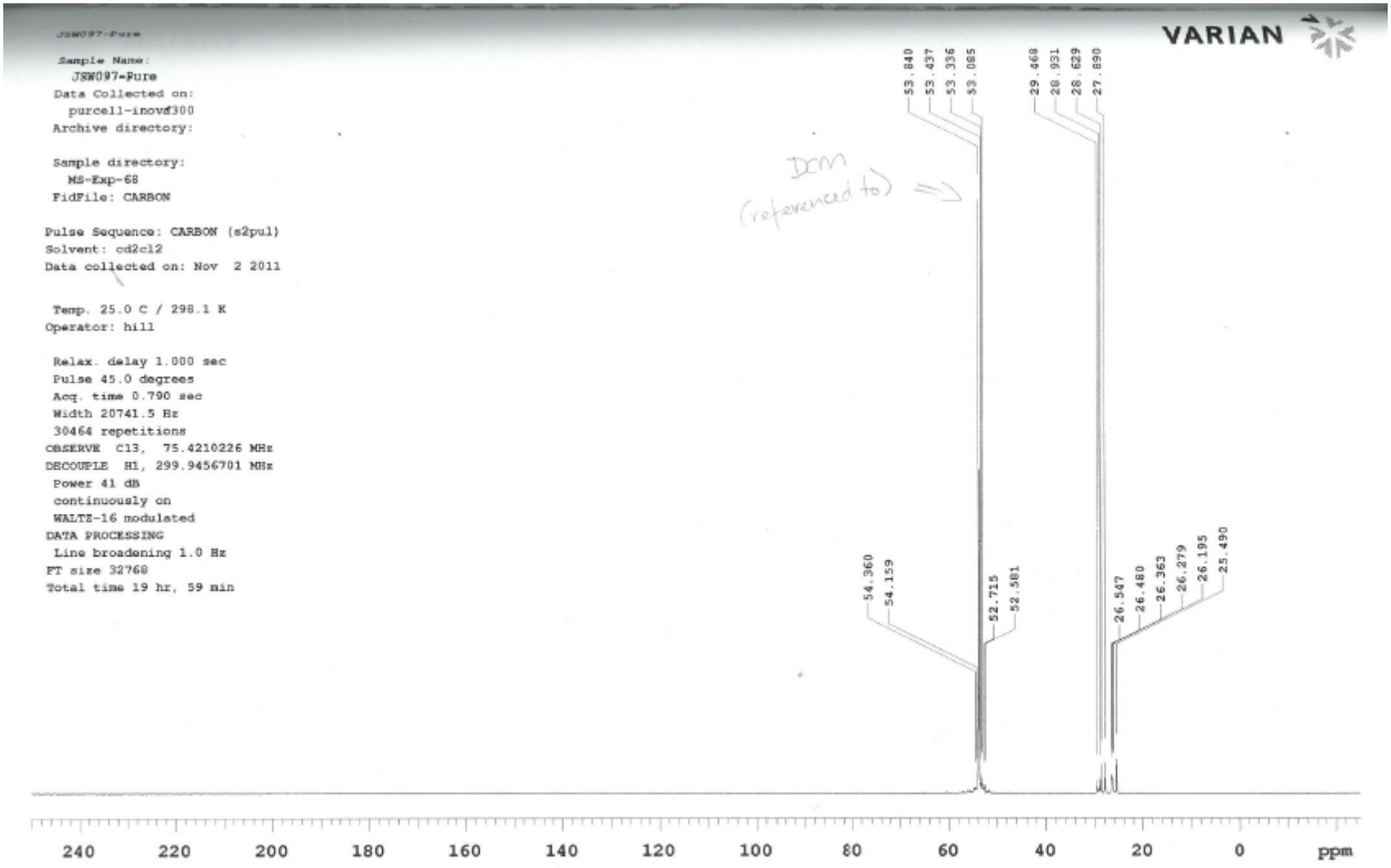
Electronic Supporting Information (ESI)



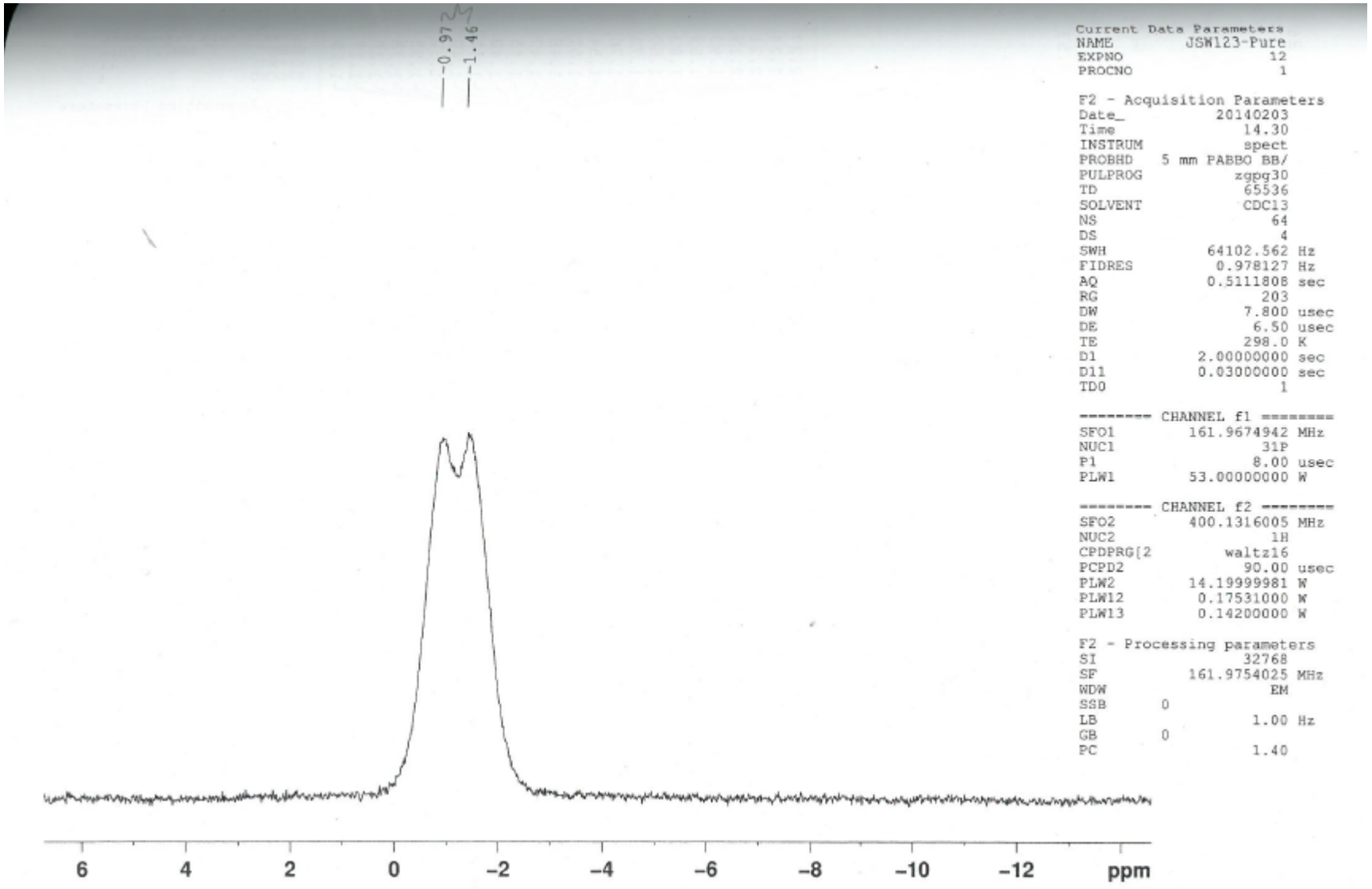
Compound 1 – ^{1}H NMR spectrum



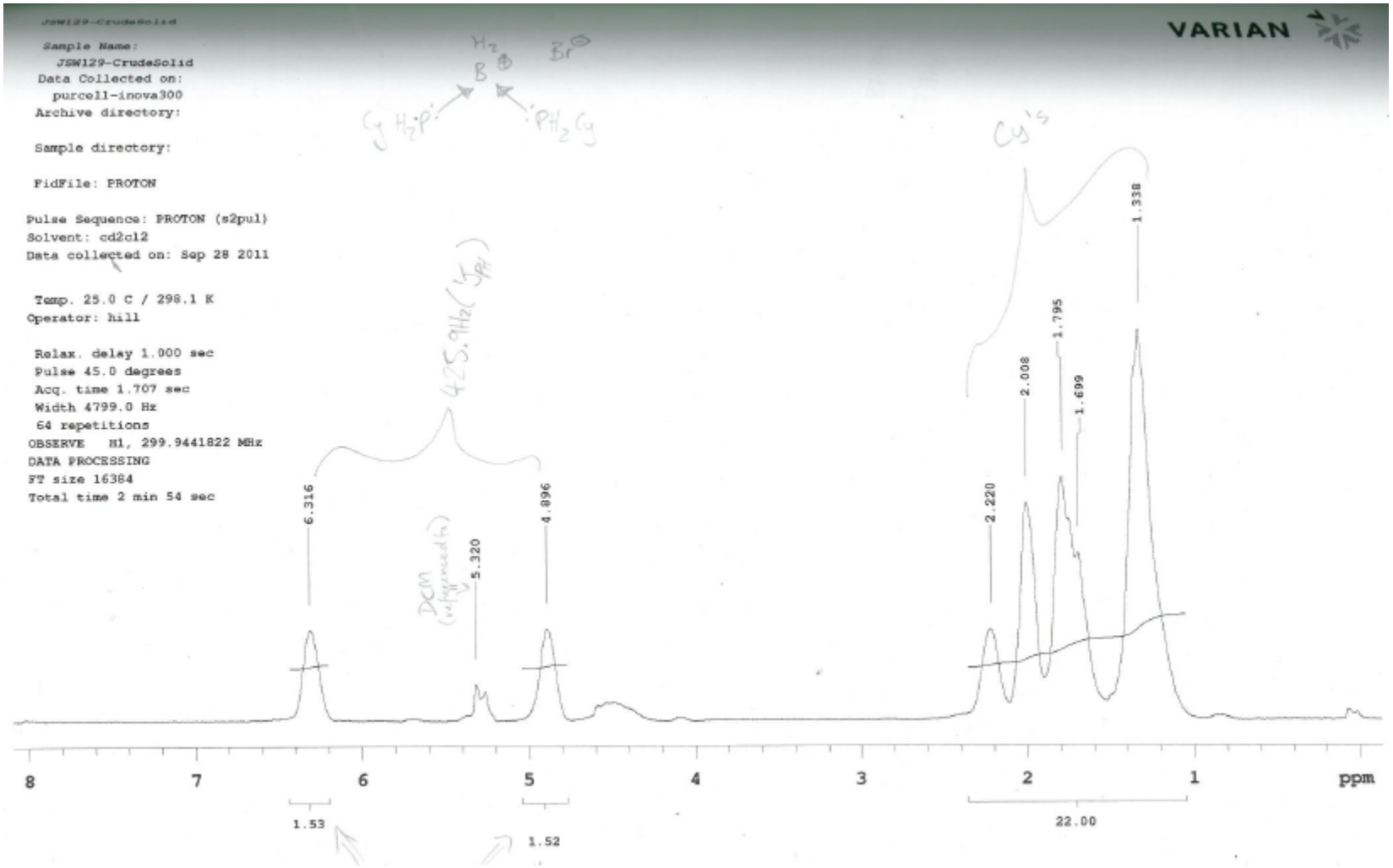
Compound 1 – $^{11}B\{^{1}H\}$ NMR spectrum



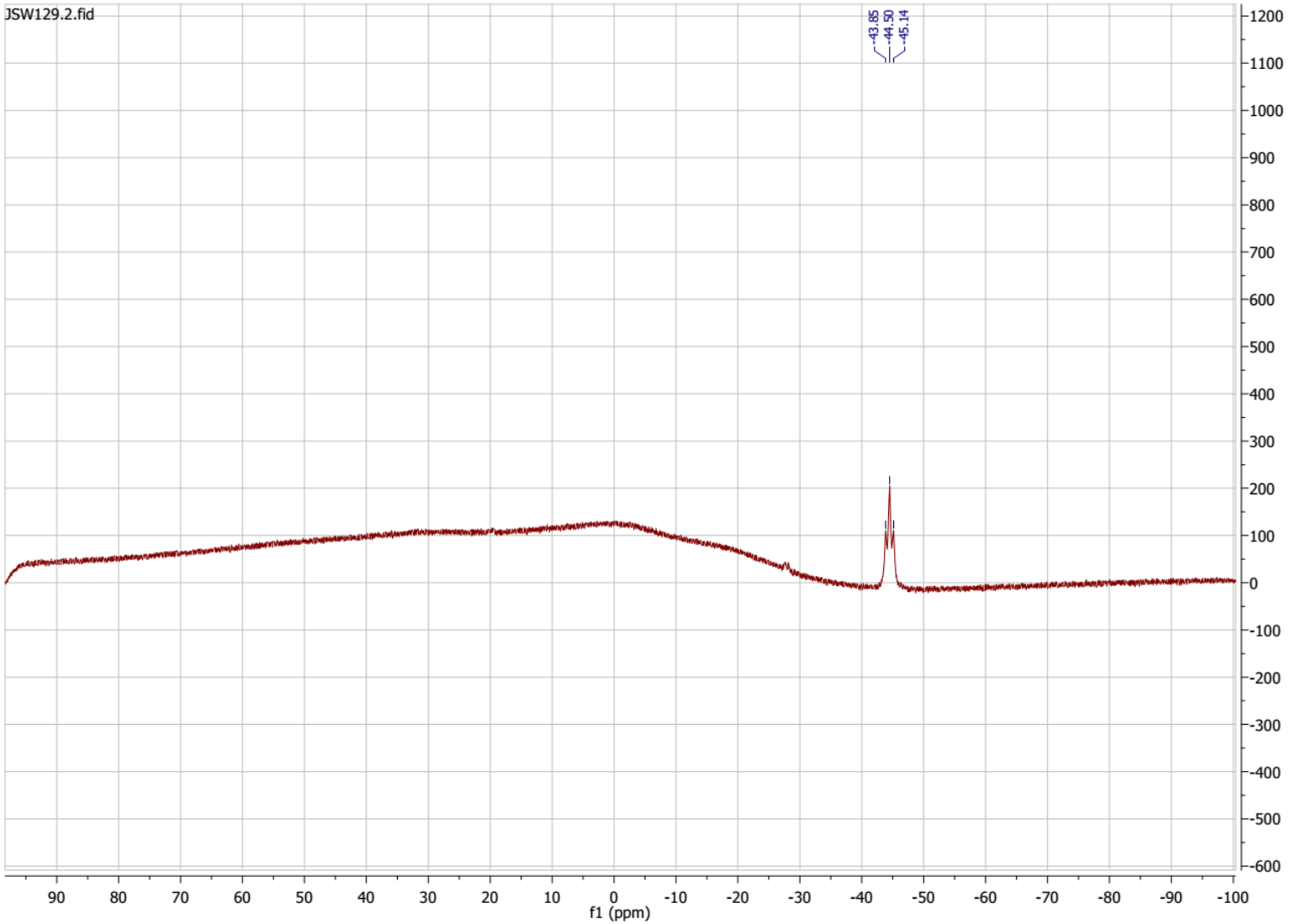
Compound 1 – $^{13}C\{^{1}H\}$ NMR spectrum



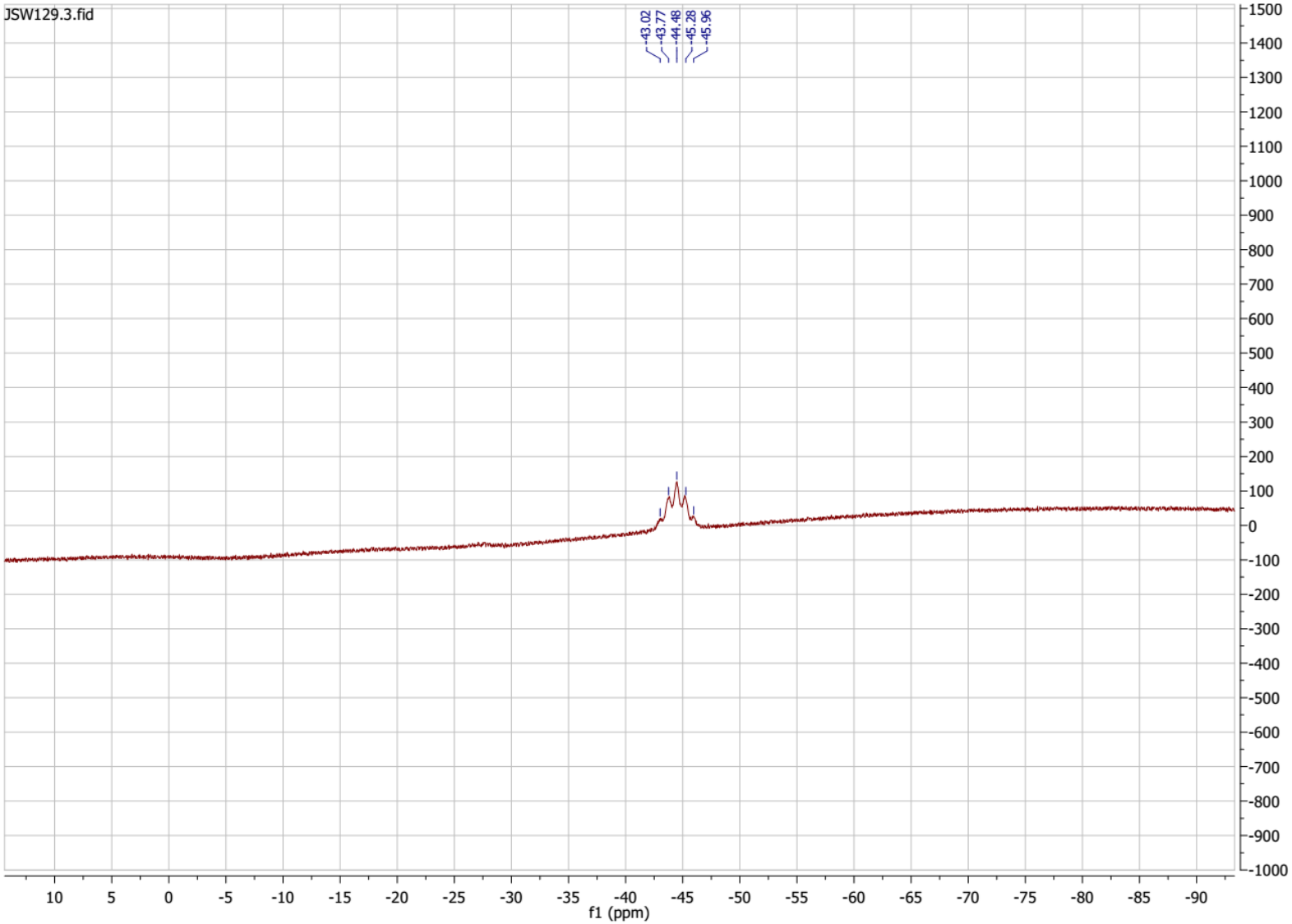
Compound 1 – $^{31}P\{^{1}H\}$ NMR spectrum



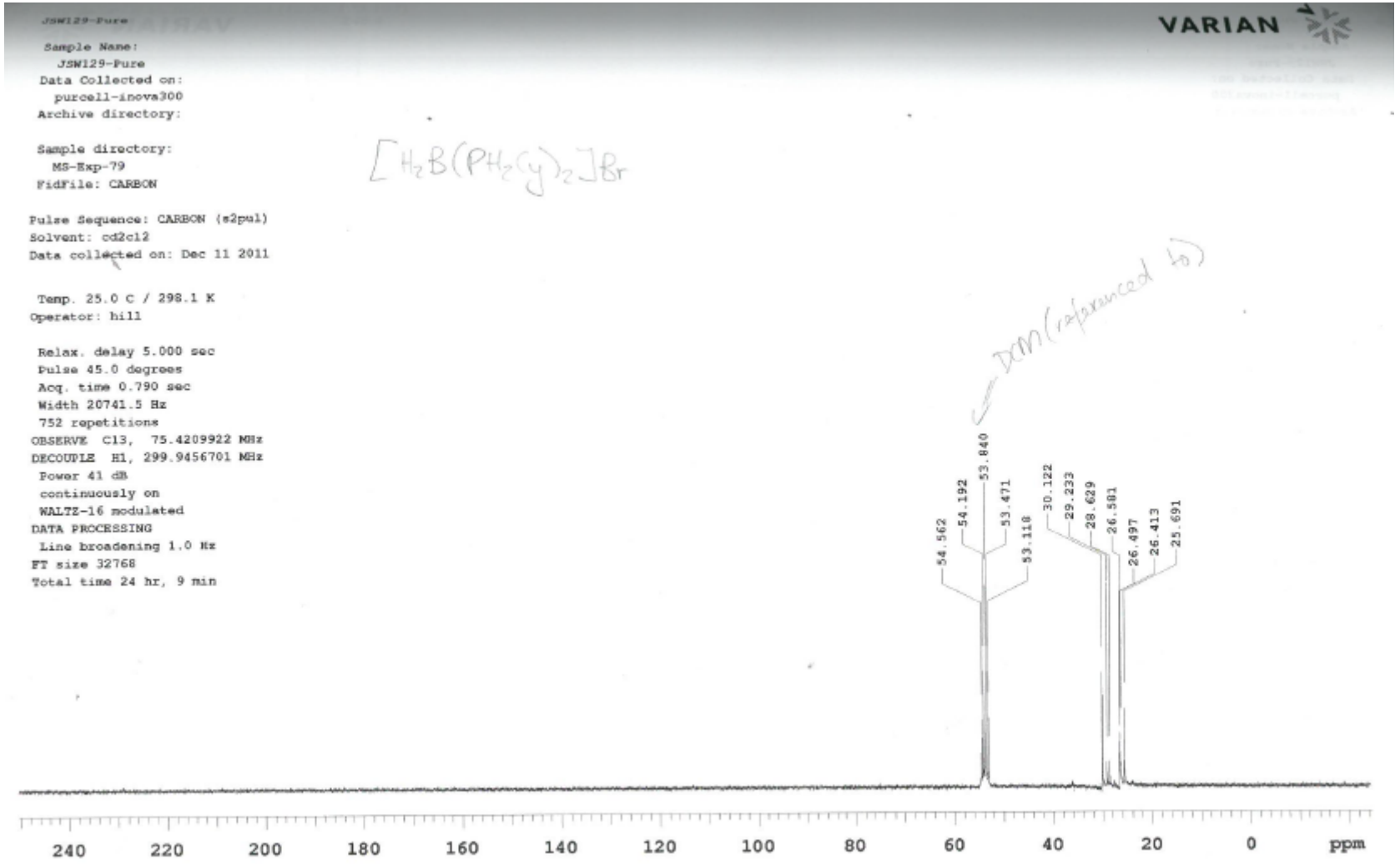
Compound 3 – ^{1}H NMR spectrum



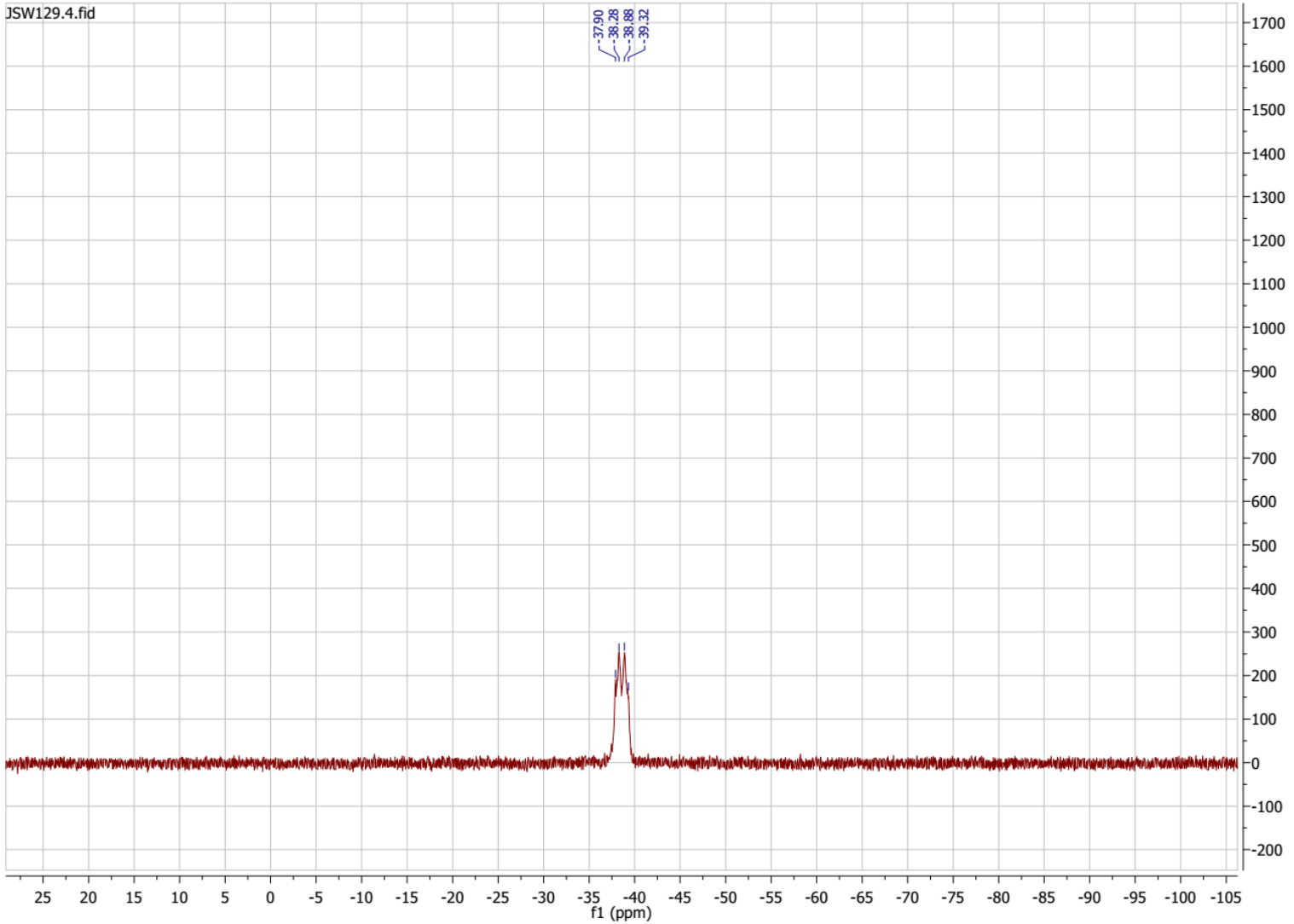
Compound 3 – $^{11}B\{^{1}H\}$ NMR spectrum



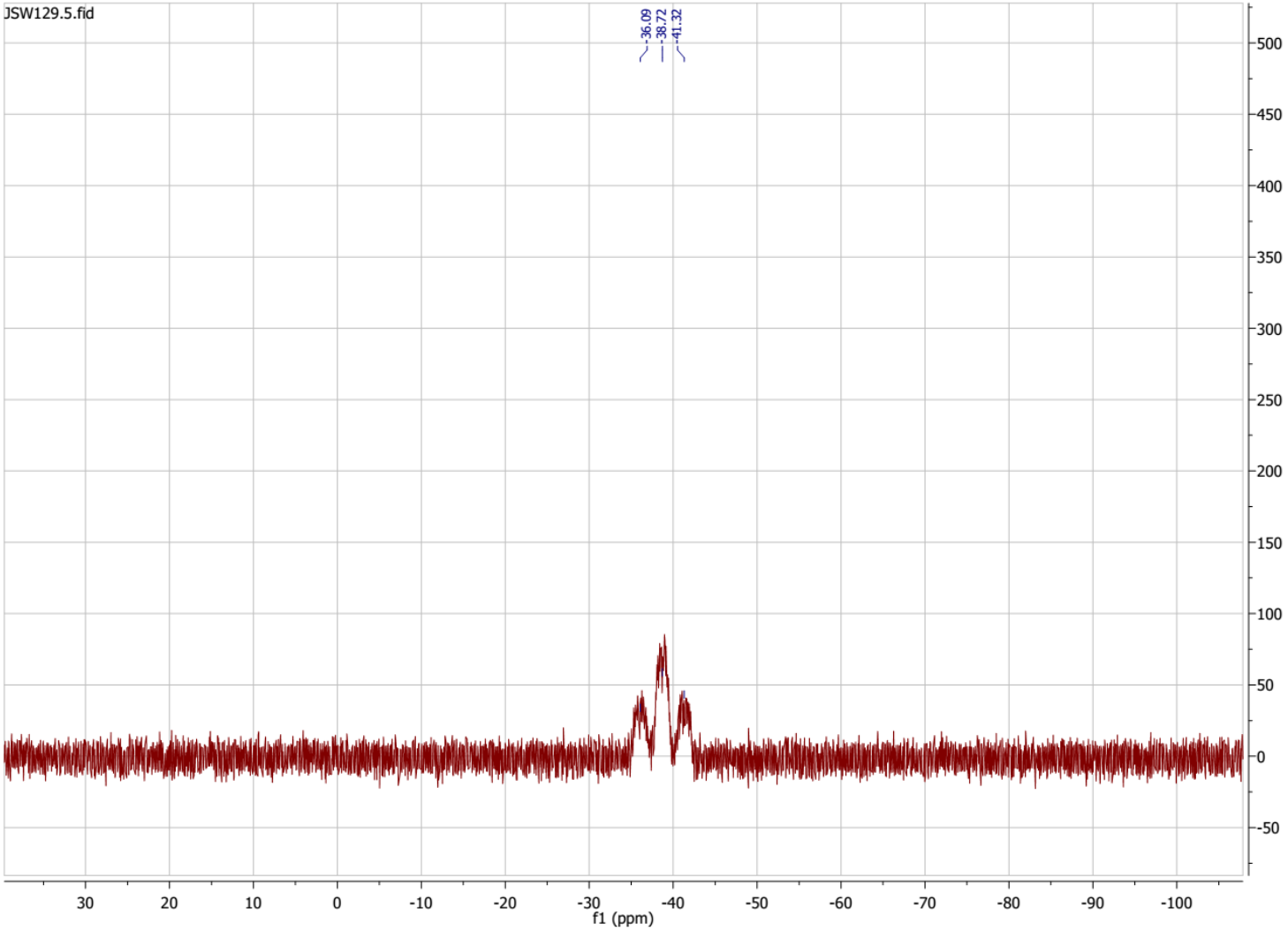
Compound 3 – ^{11}B NMR spectrum



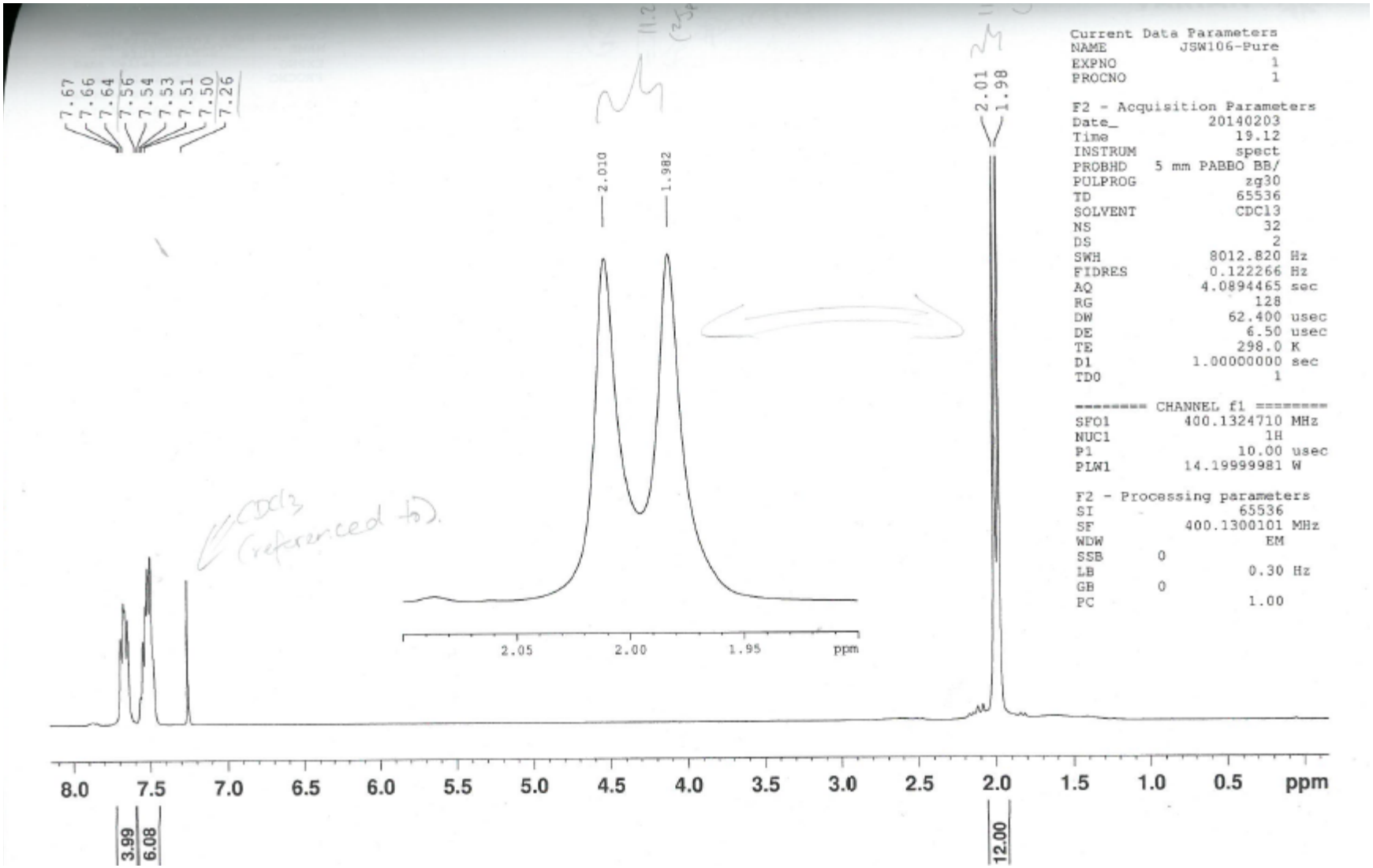
Compound 3 – $^{13}C\{^{1}H\}$ NMR spectrum



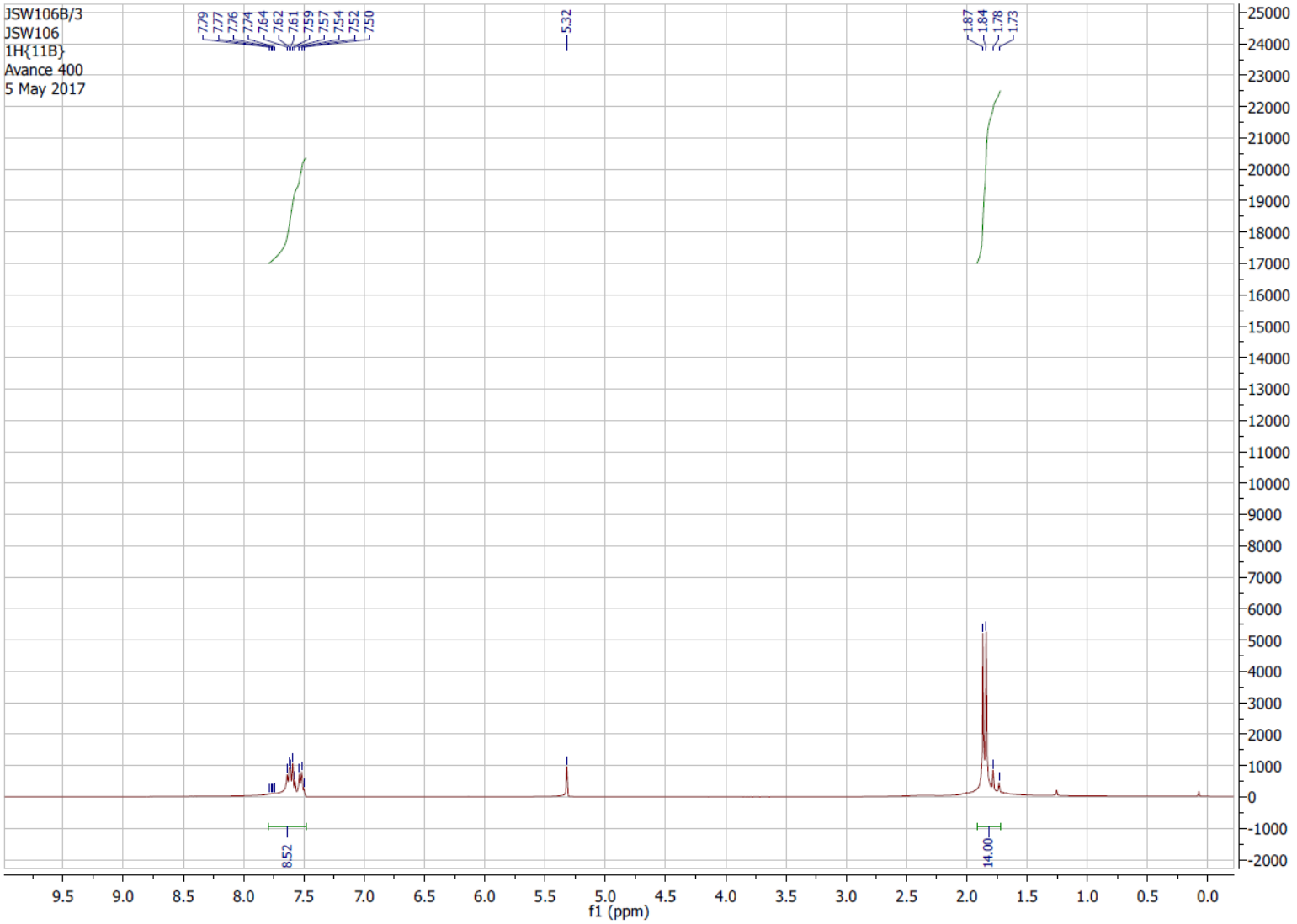
Compound 3 – $^{31}P\{^{1}H\}$ NMR spectrum



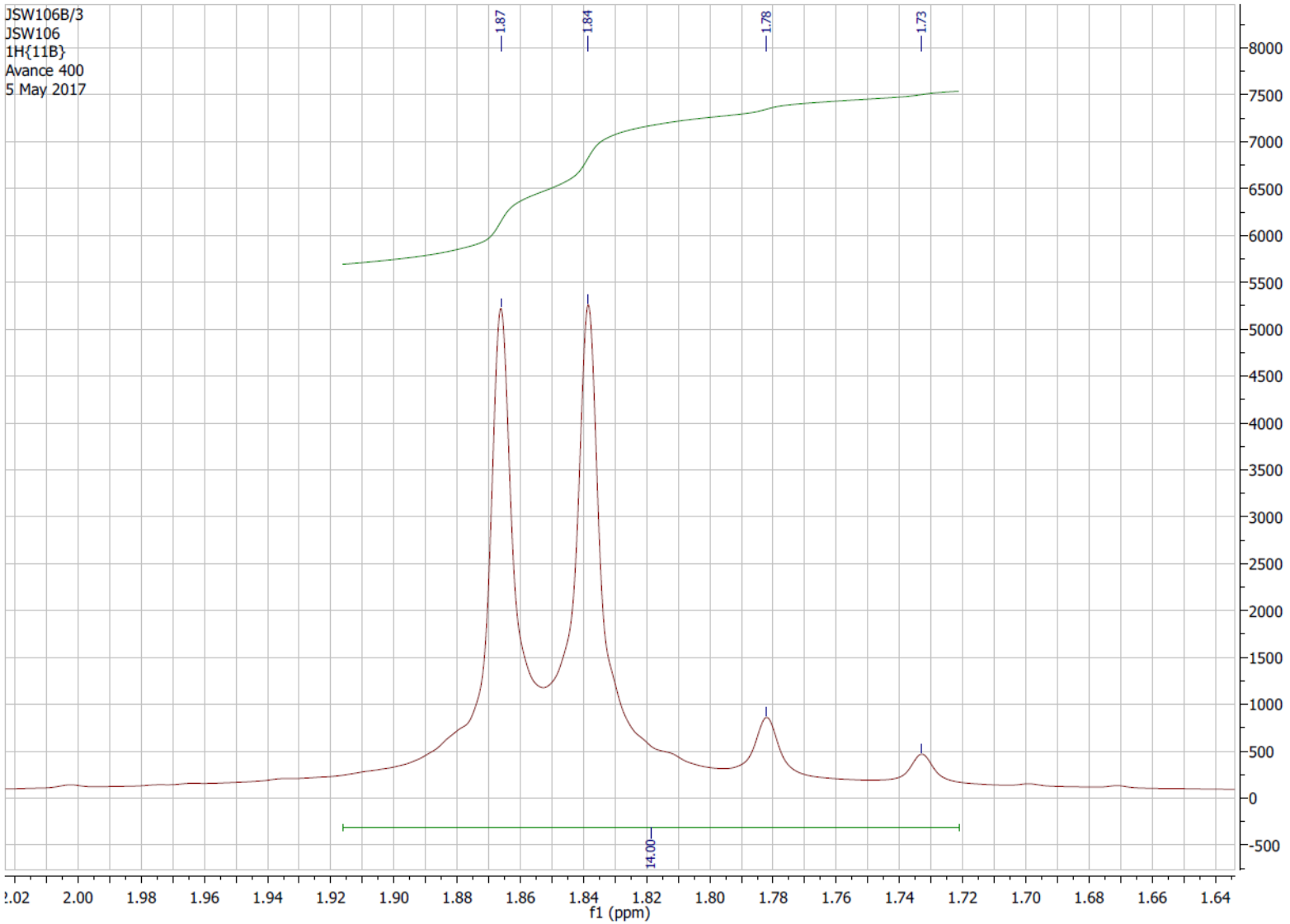
Compound 3 – ^{31}P NMR spectrum



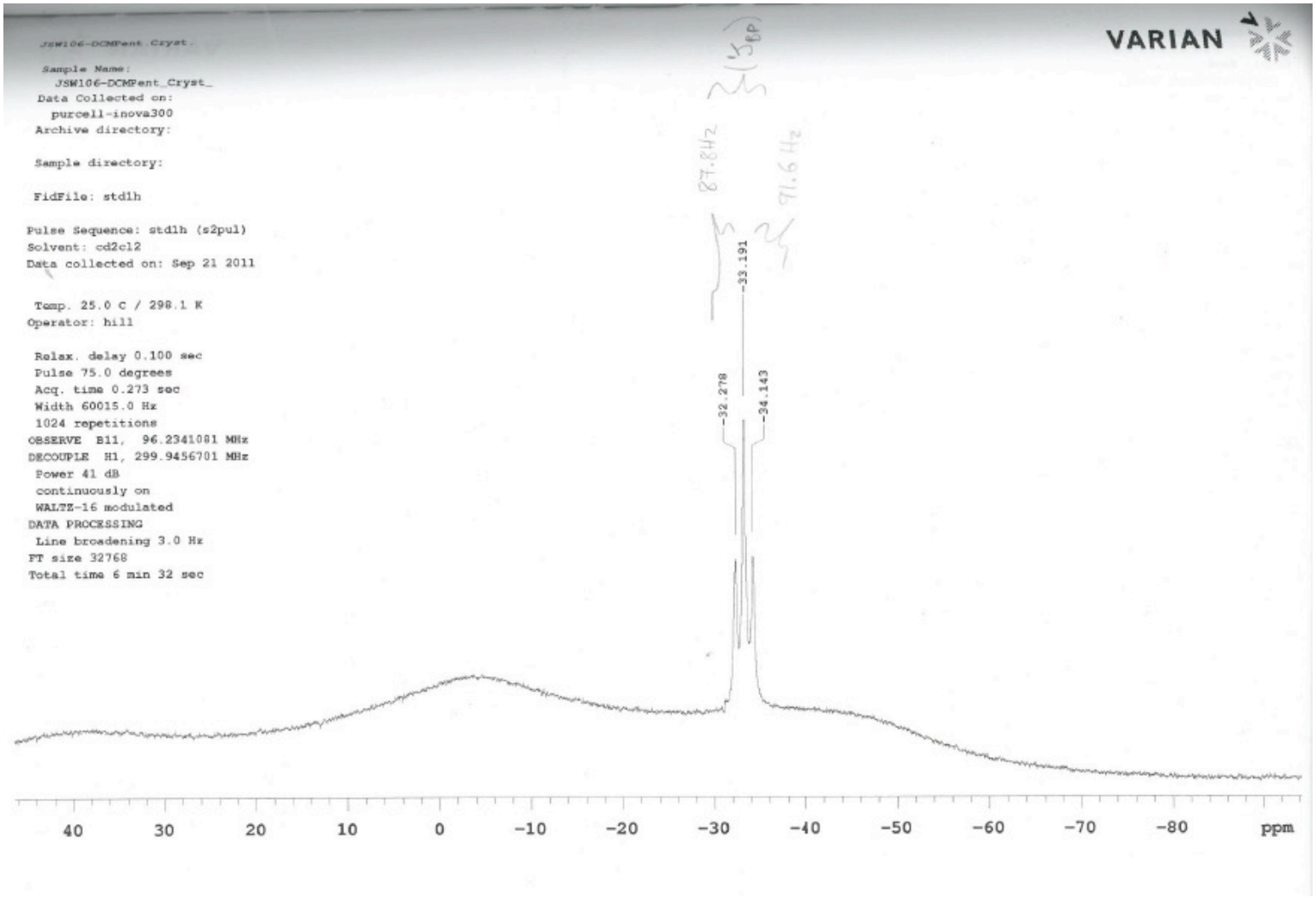
Compound 4 – ^{1}H NMR spectrum



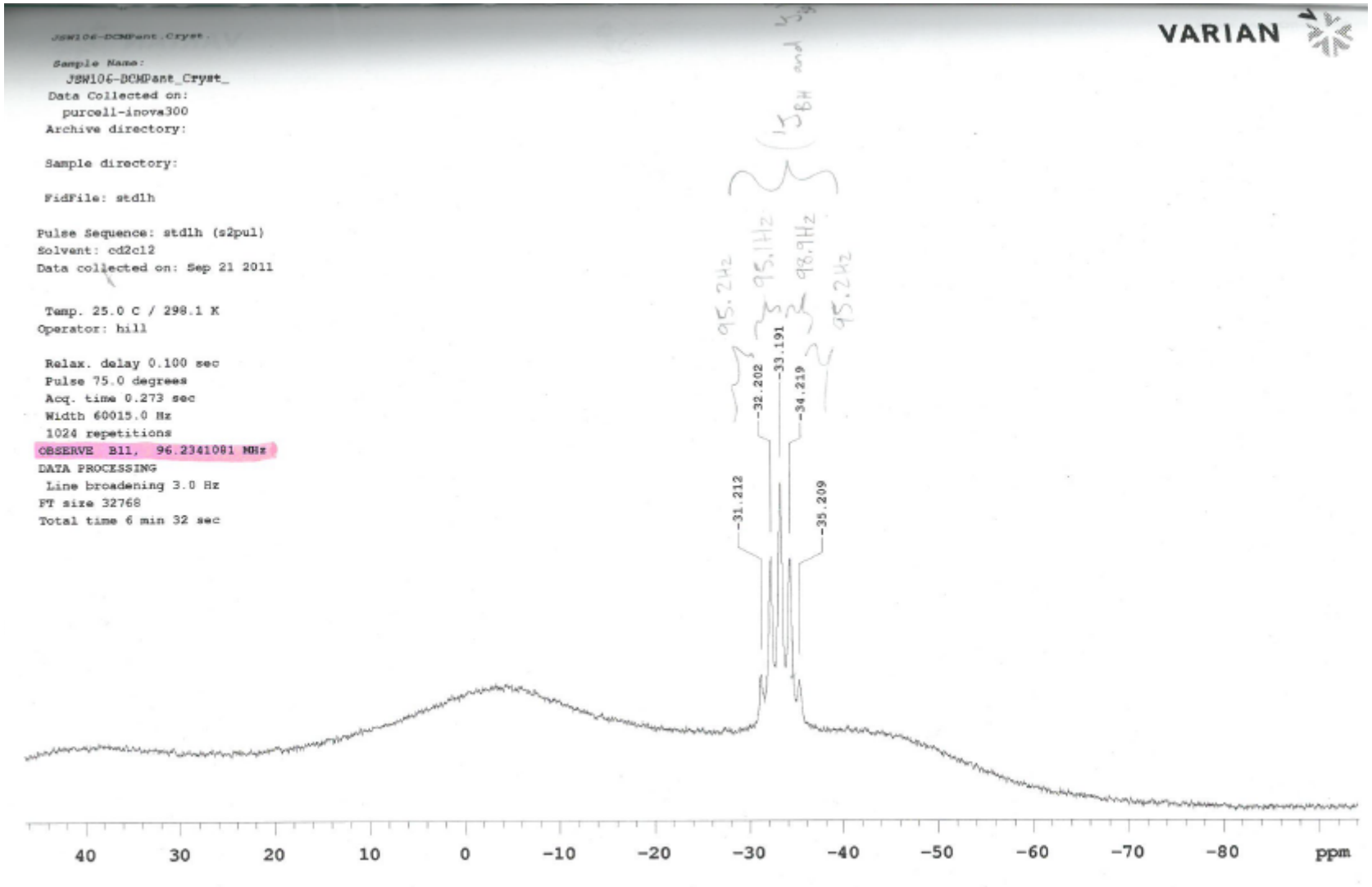
Compound 4 – $^{1}H\{^{11}B\}$ NMR spectrum



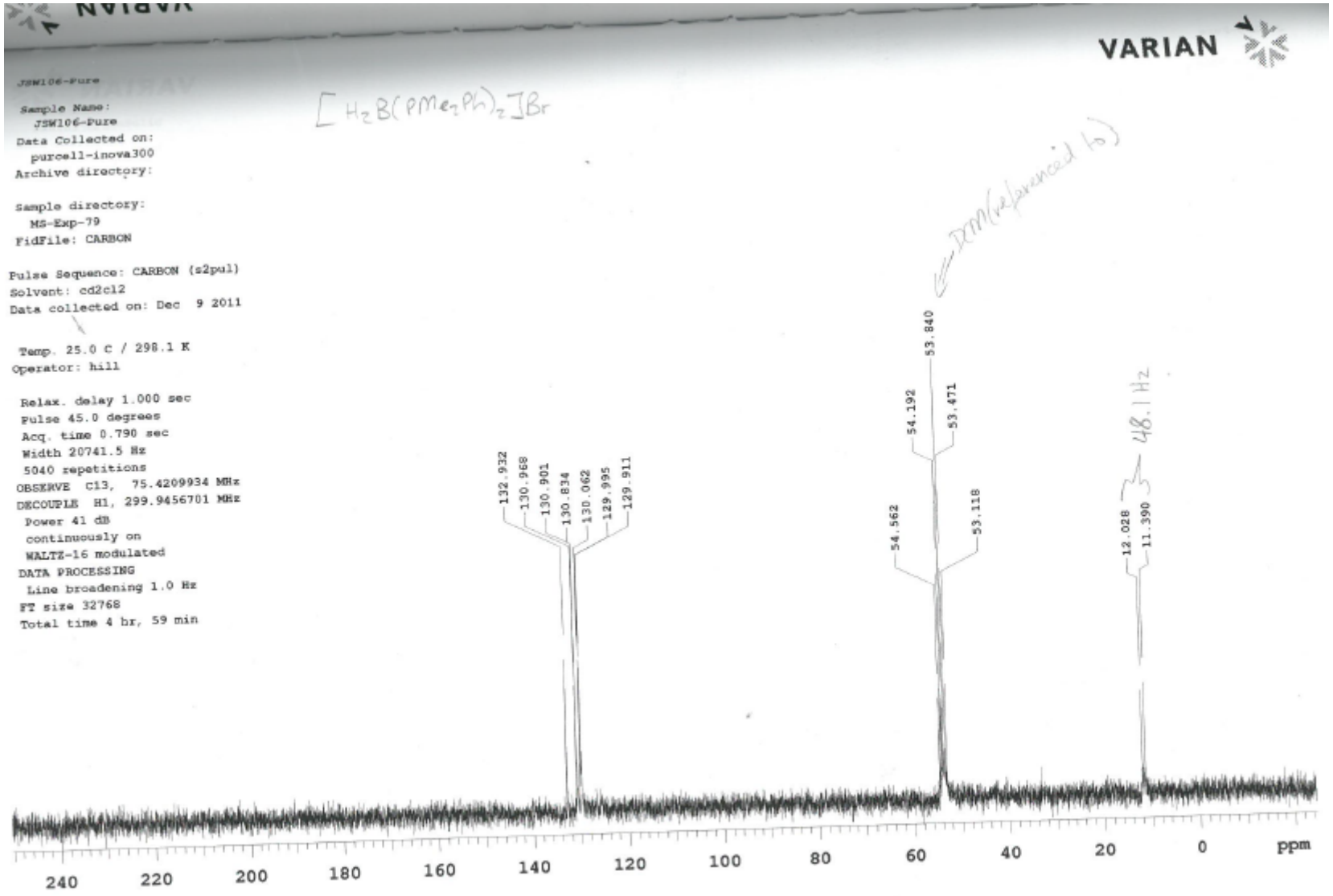
Compound 4 – $^{1}H\{^{11}B\}$ NMR spectrum (Expansion of BH_2 resonance)



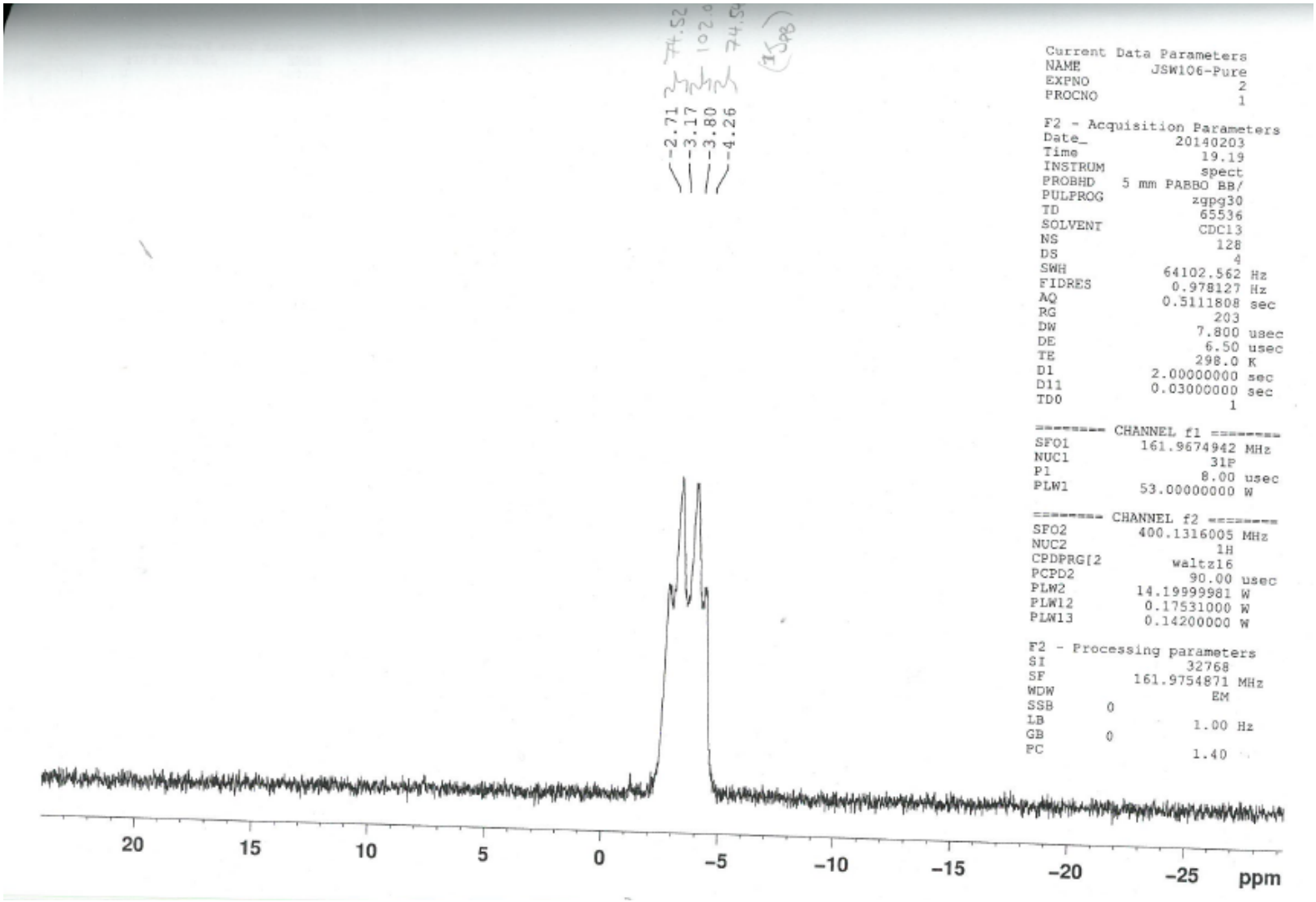
Compound 4 – $^{11}B\{^{1}H\}$ NMR spectrum



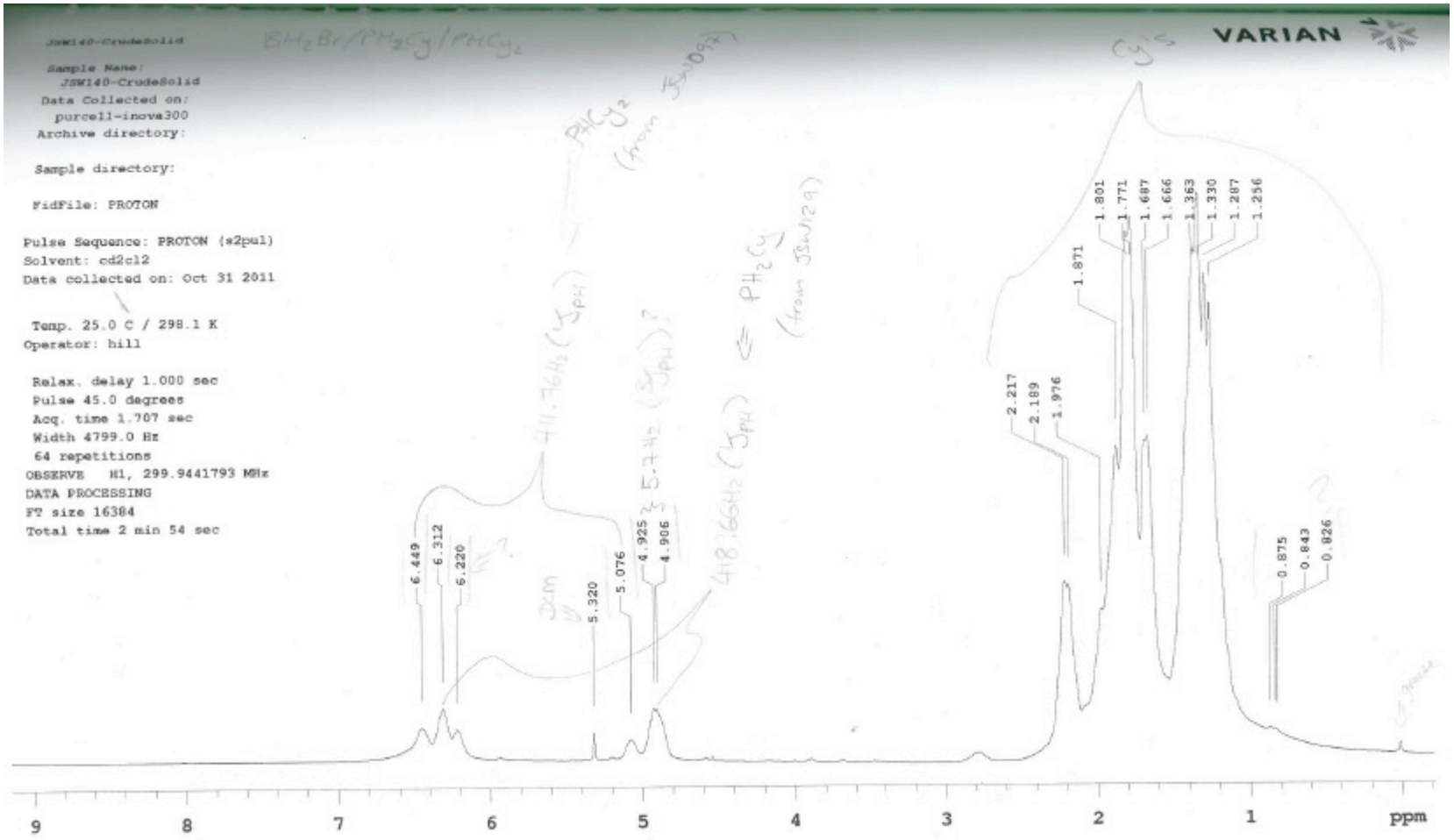
Compound 4 – ^{11}B NMR spectrum



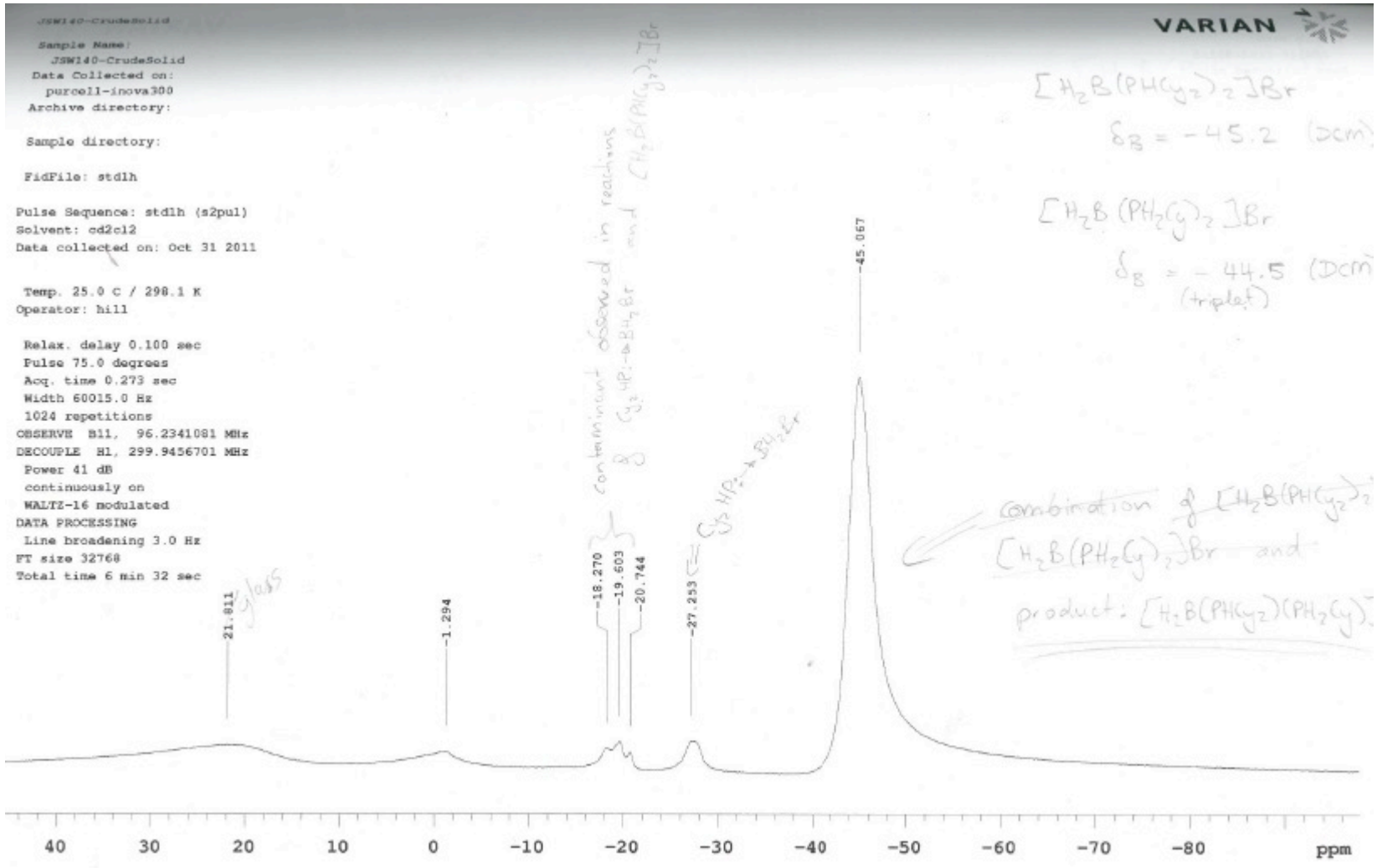
Compound 4 – $^{13}C\{^{1}H\}$ NMR spectrum



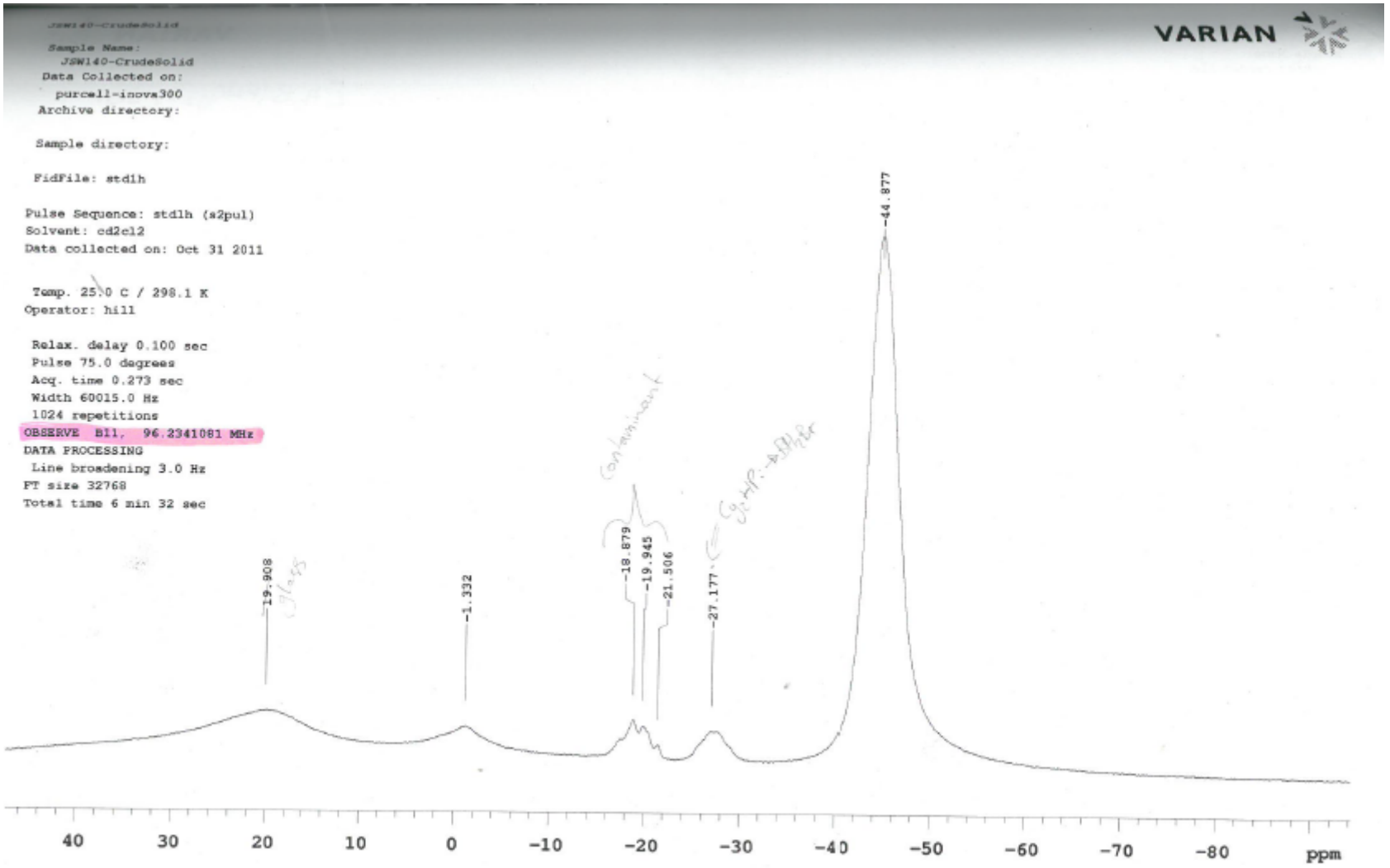
Compound 4 – $^{31}P\{^{1}H\}$ NMR spectrum



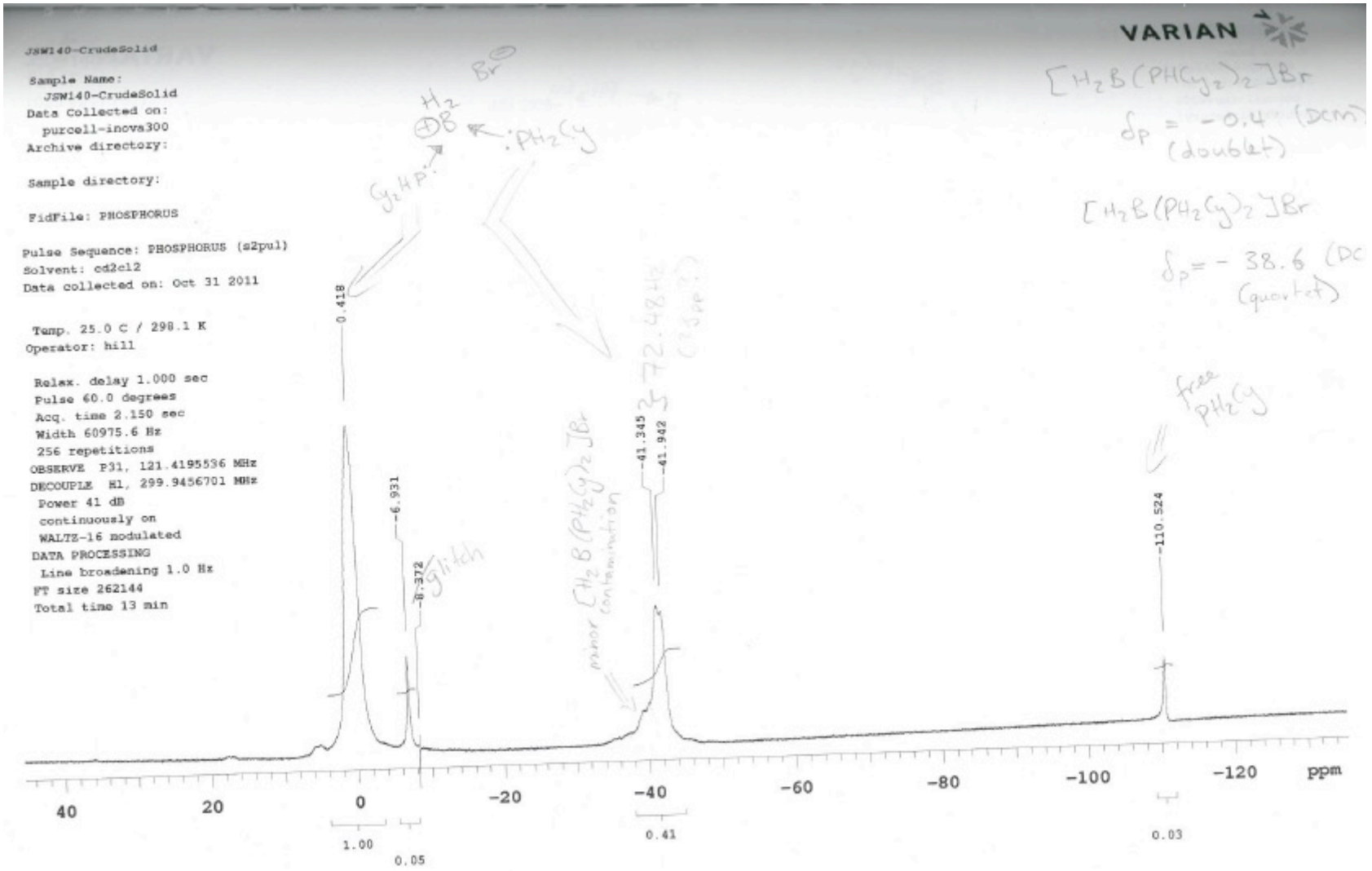
Compound 5 – ^{1}H NMR spectrum



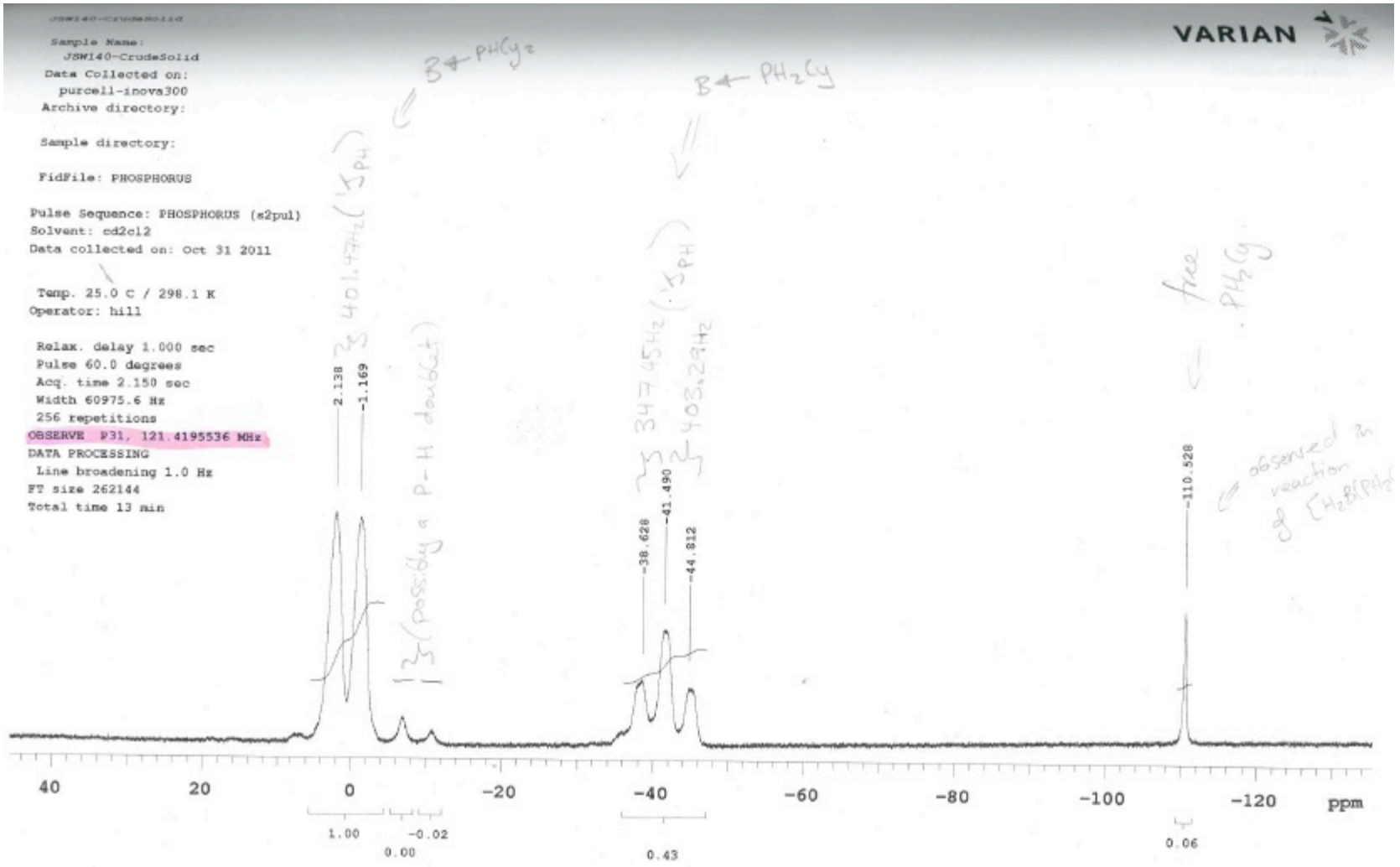
Compound 5 – $^{11}B\{^{1}H\}$ NMR spectrum



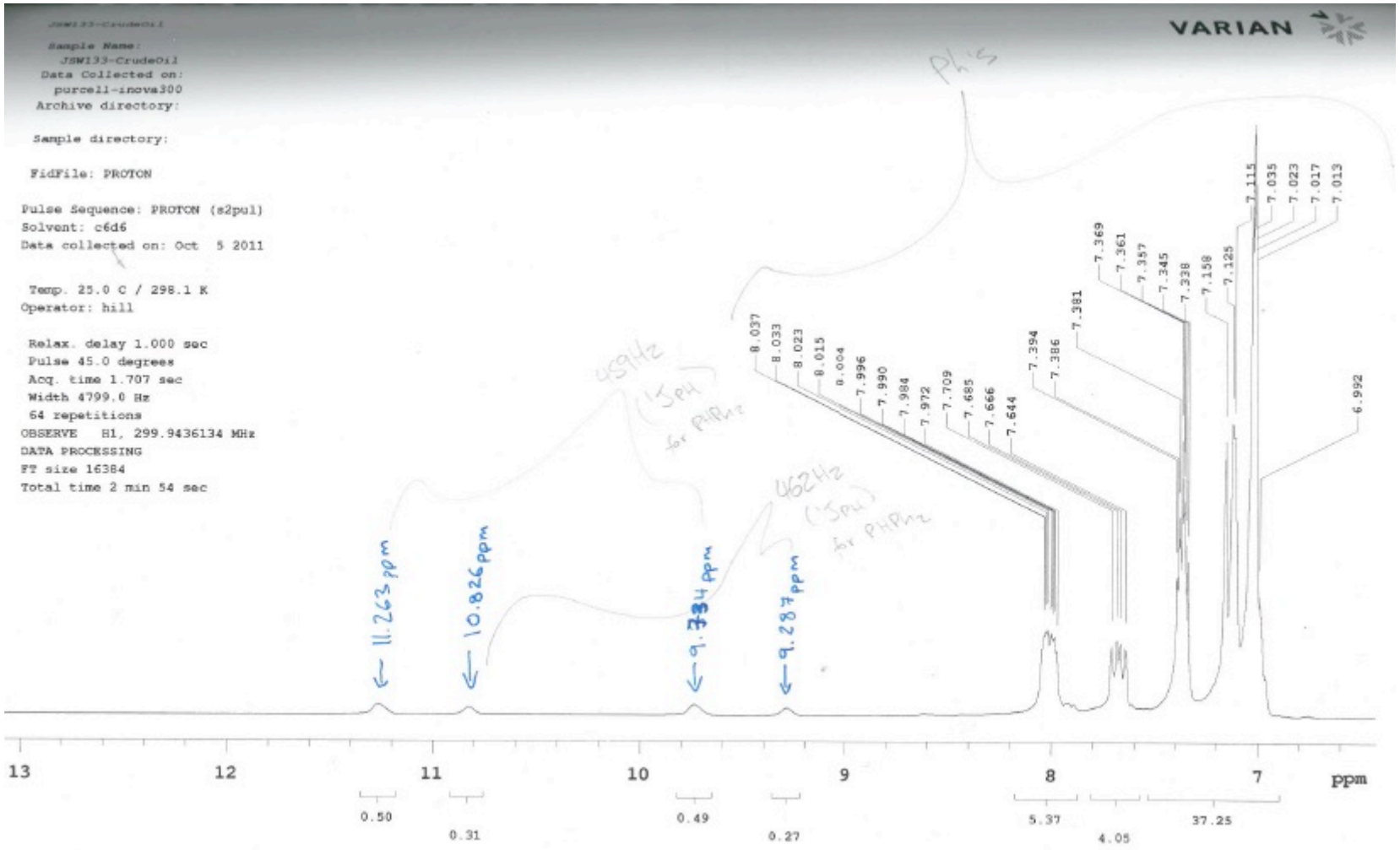
Compound 5 – ^{11}B NMR spectrum



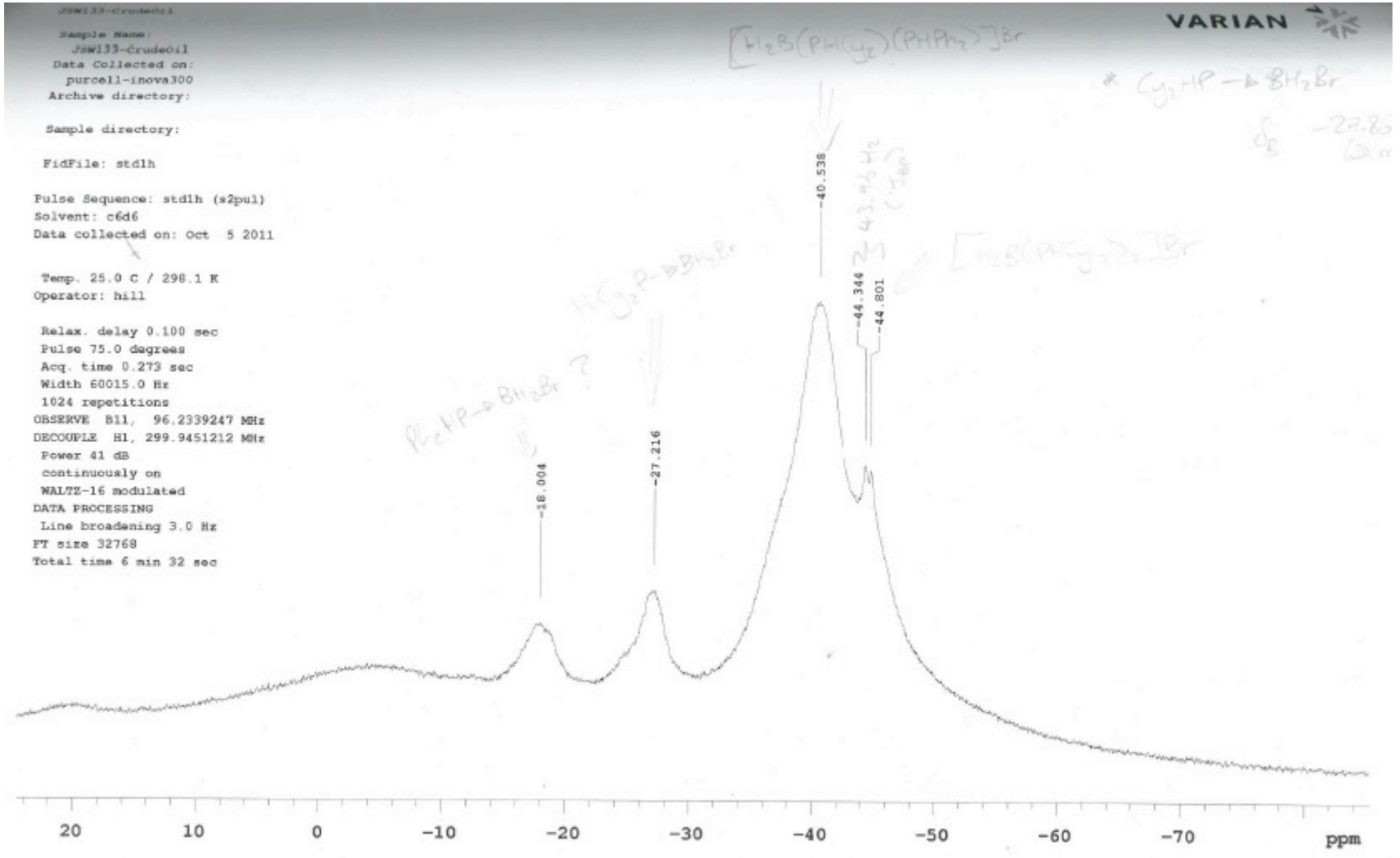
Compound 5 – $^{31}P\{^{1}H\}$ NMR spectrum



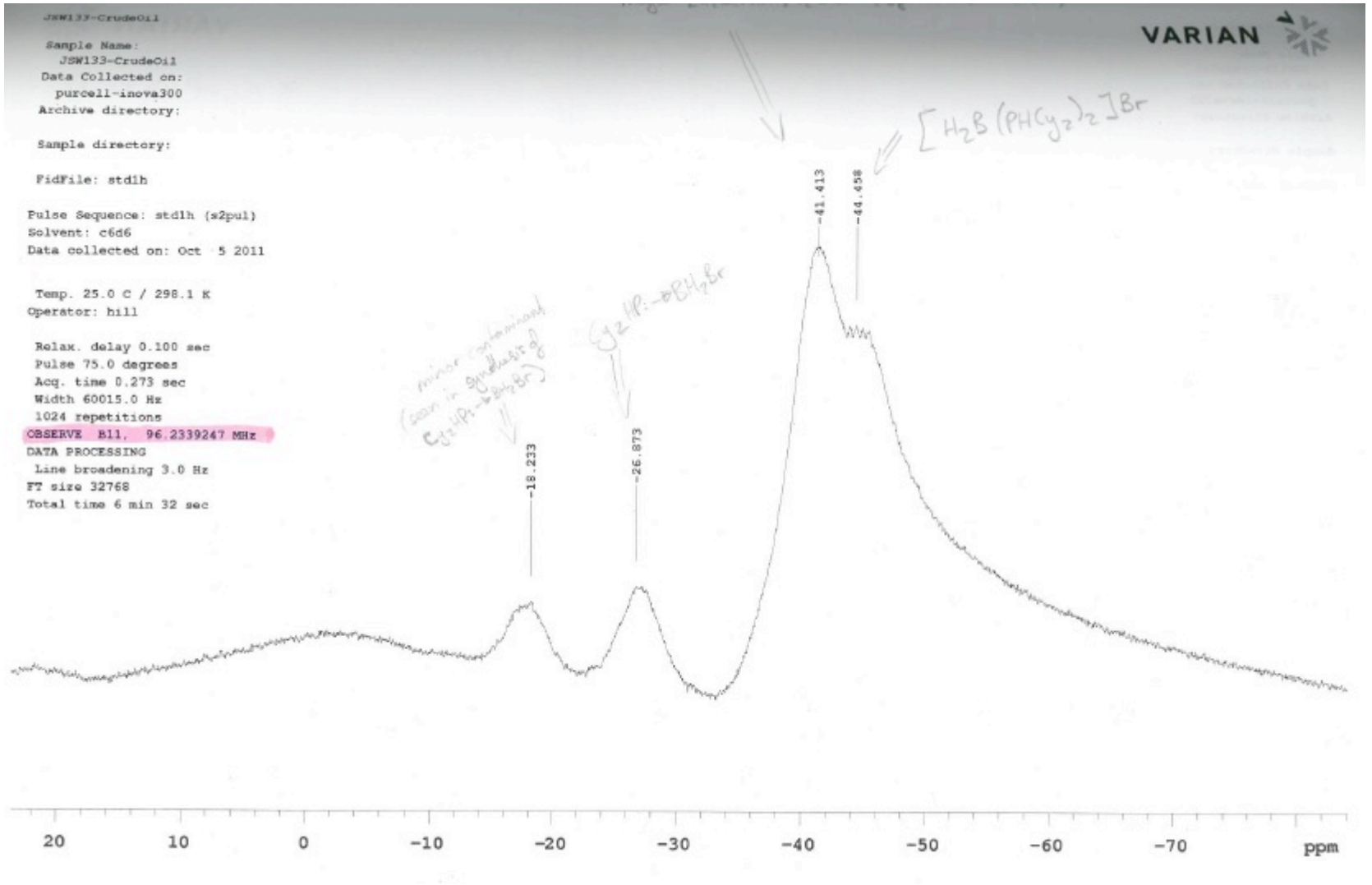
Compound 5 – ^{31}P NMR spectrum



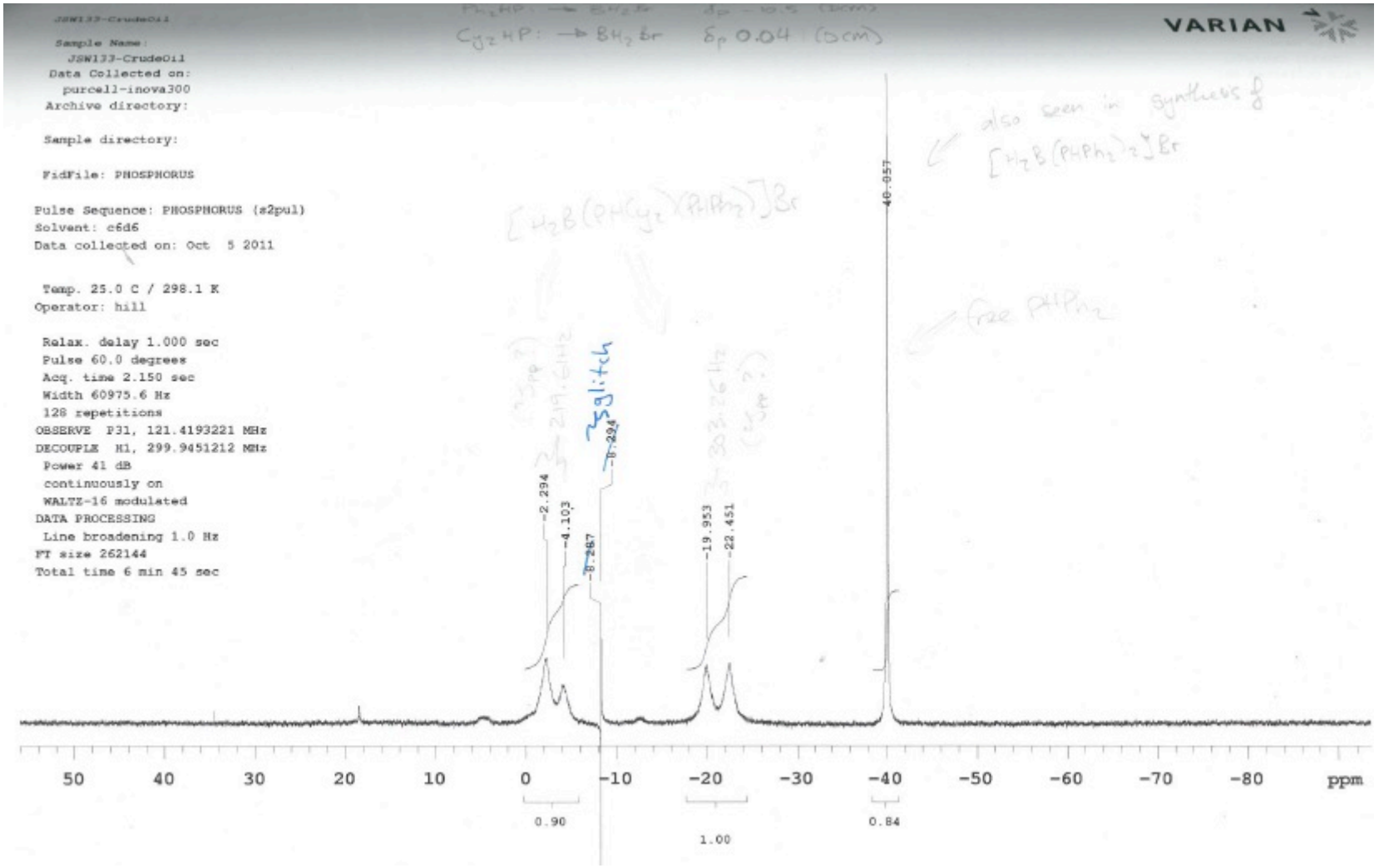
Compound 6 – ^{1}H NMR spectrum



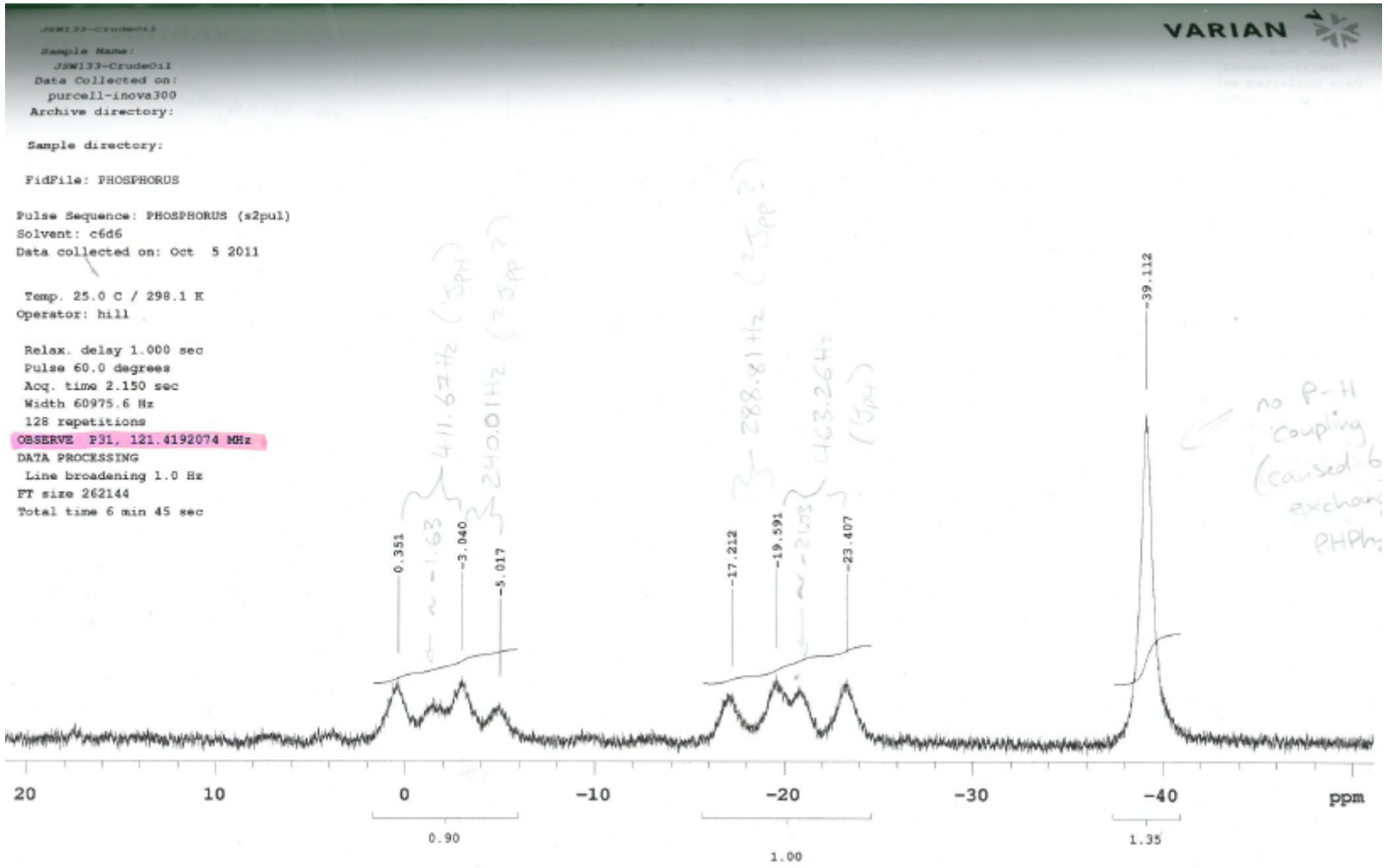
Compound 6 – $^{11}B\{^{1}H\}$ NMR spectrum



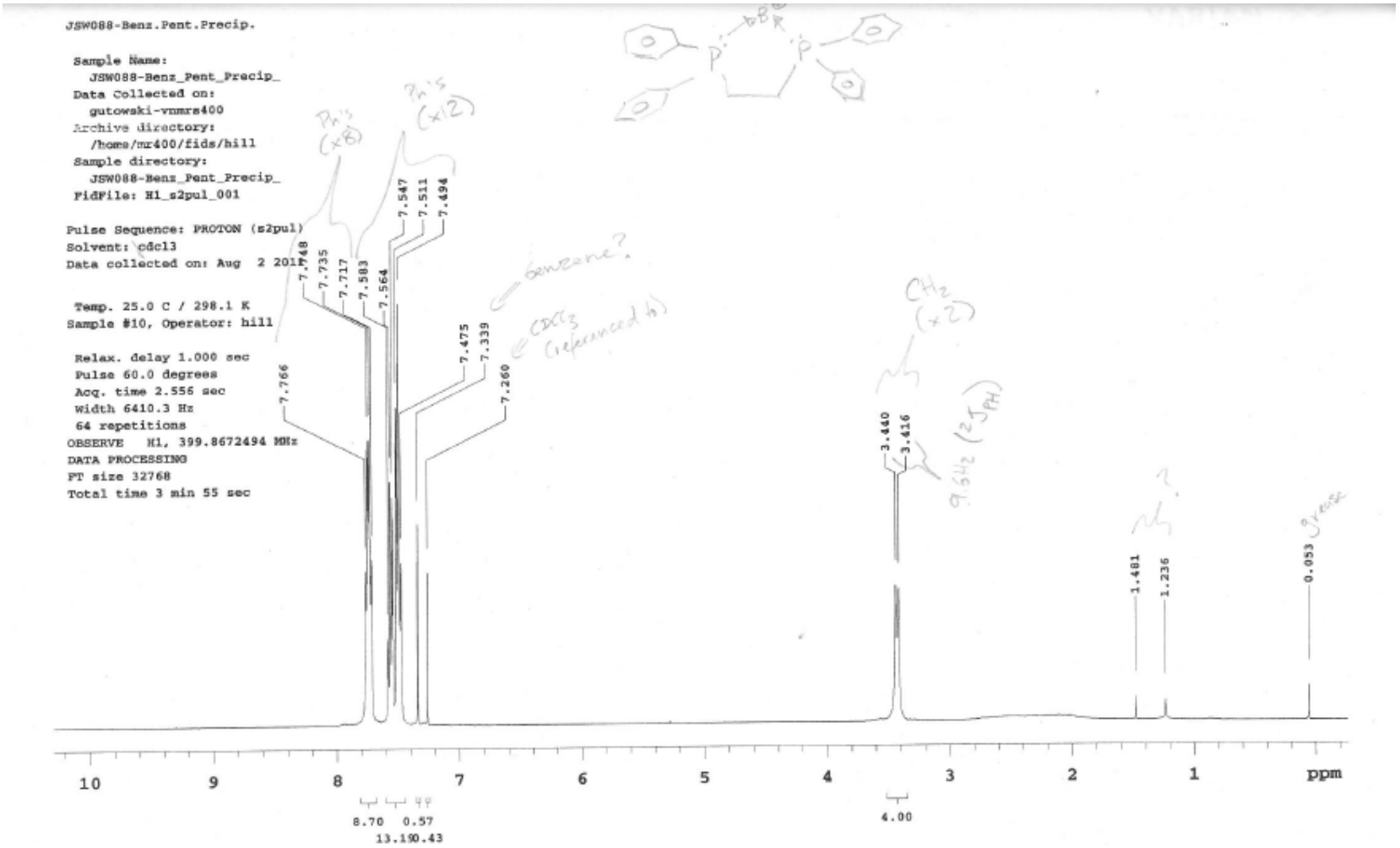
Compound 6 – ^{11}B NMR spectrum



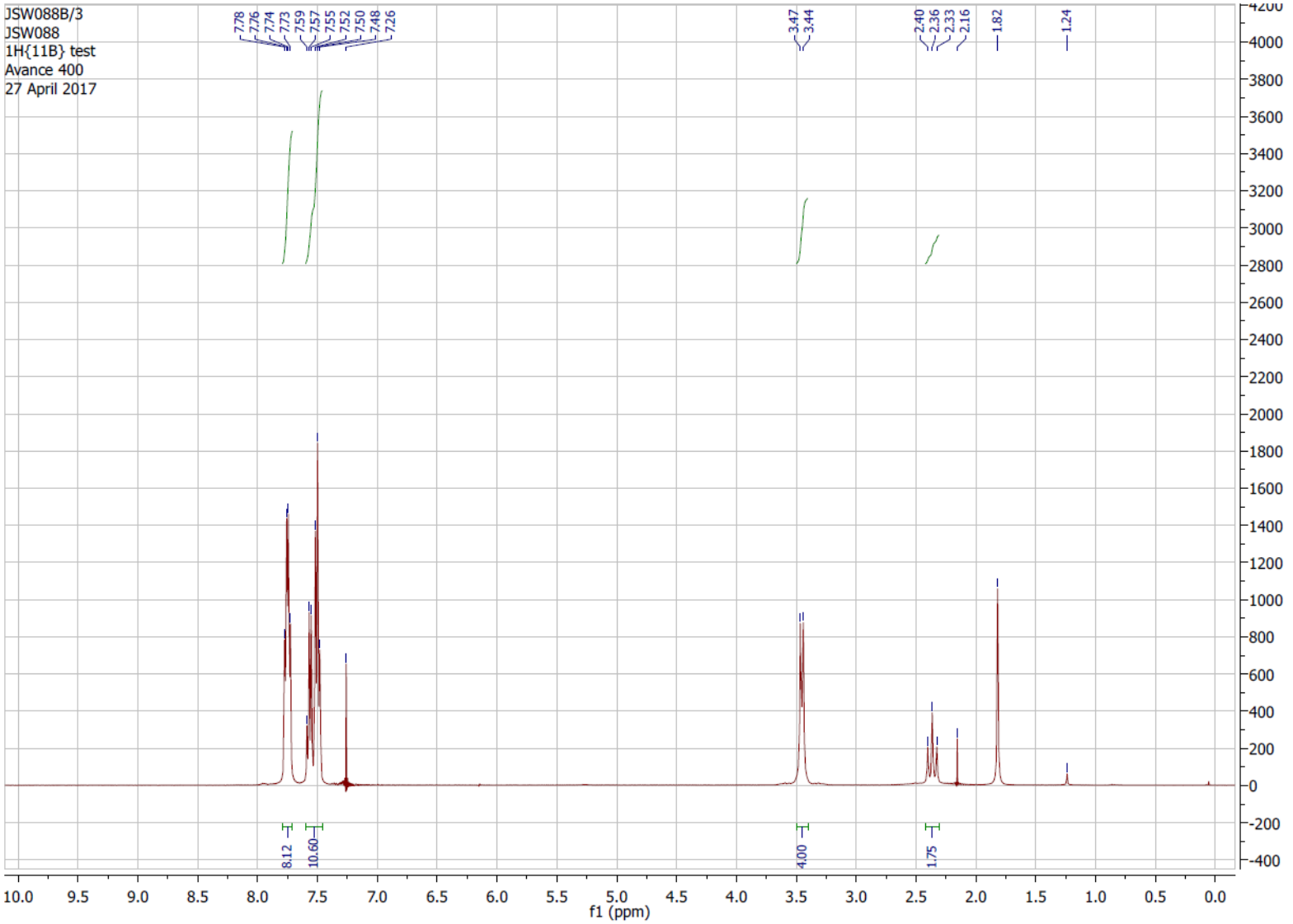
Compound 6 – $^{31}P\{^{1}H\}$ NMR spectrum



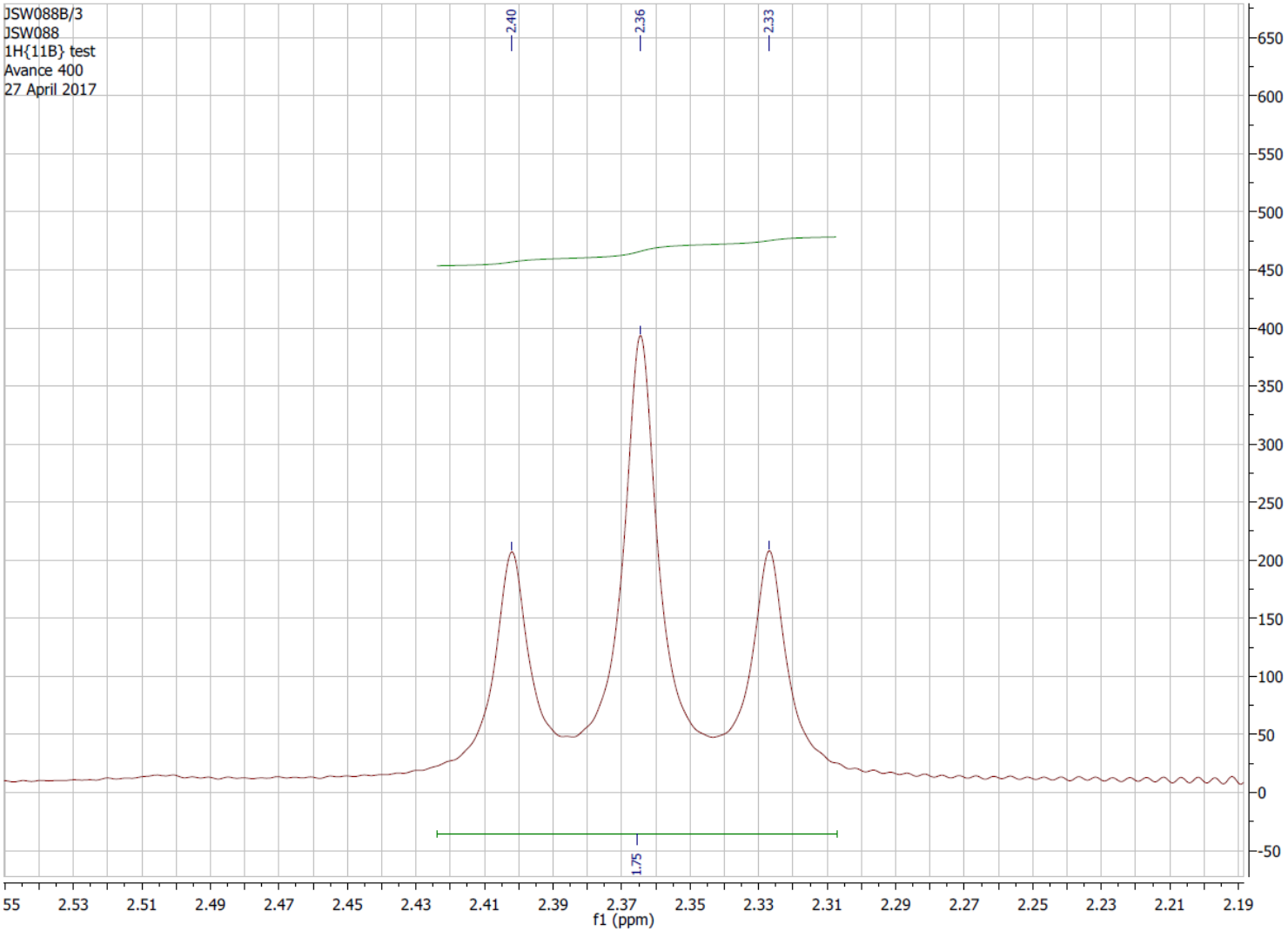
Compound 6 – ^{31}P NMR spectrum



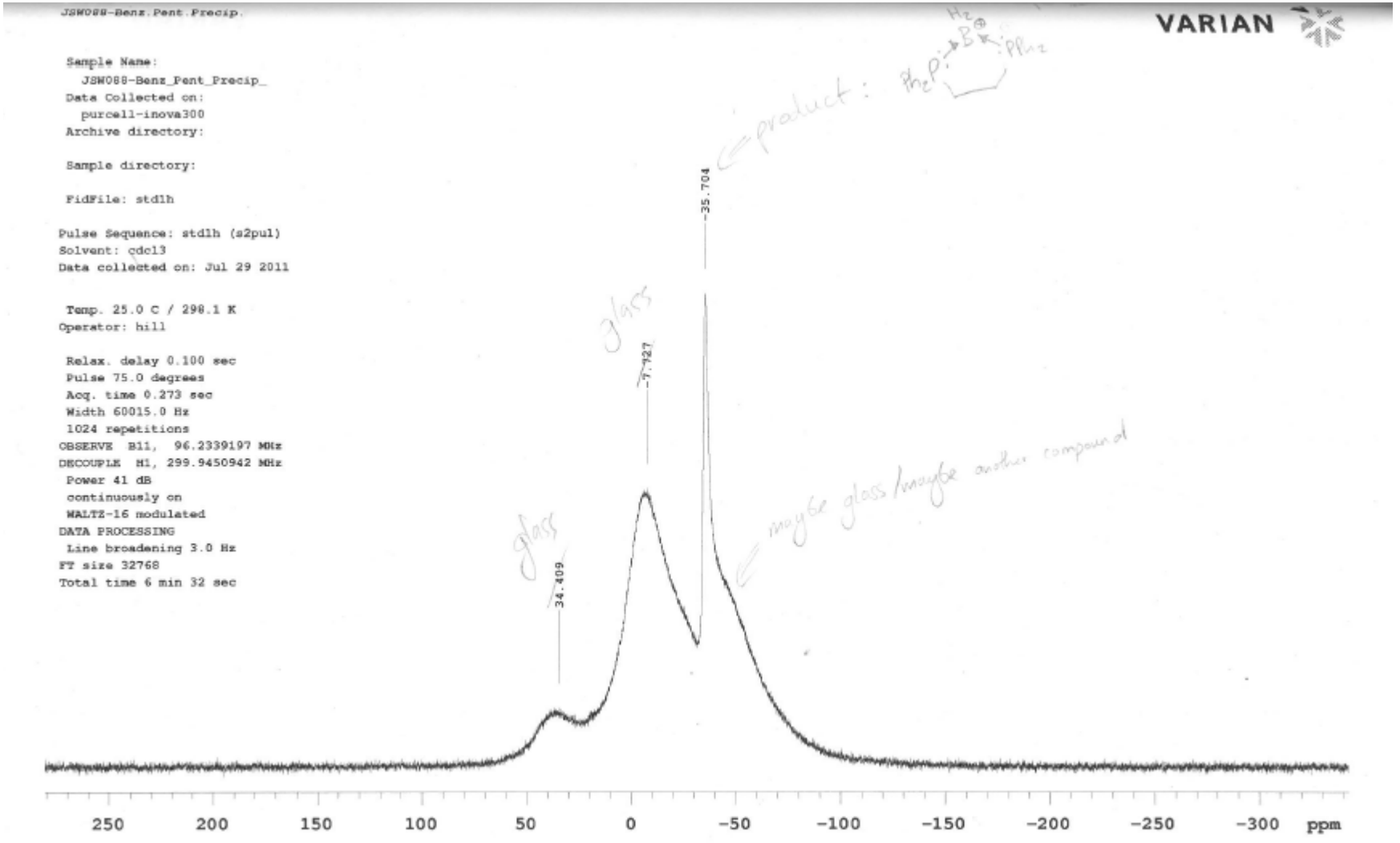
Compound 7 – ^{1}H NMR spectrum



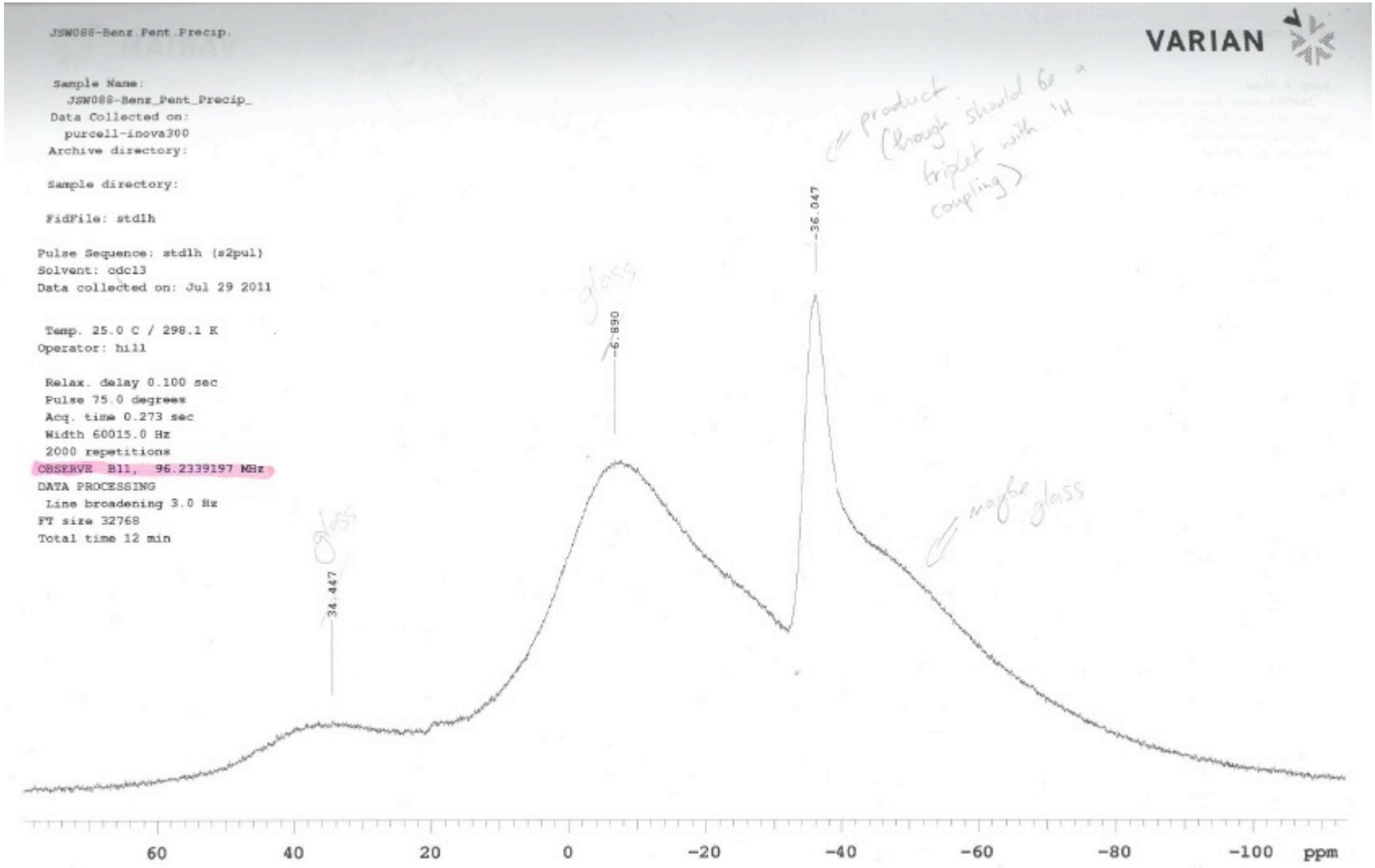
Compound 7 – $^{1}H\{^{11}B\}$ NMR spectrum



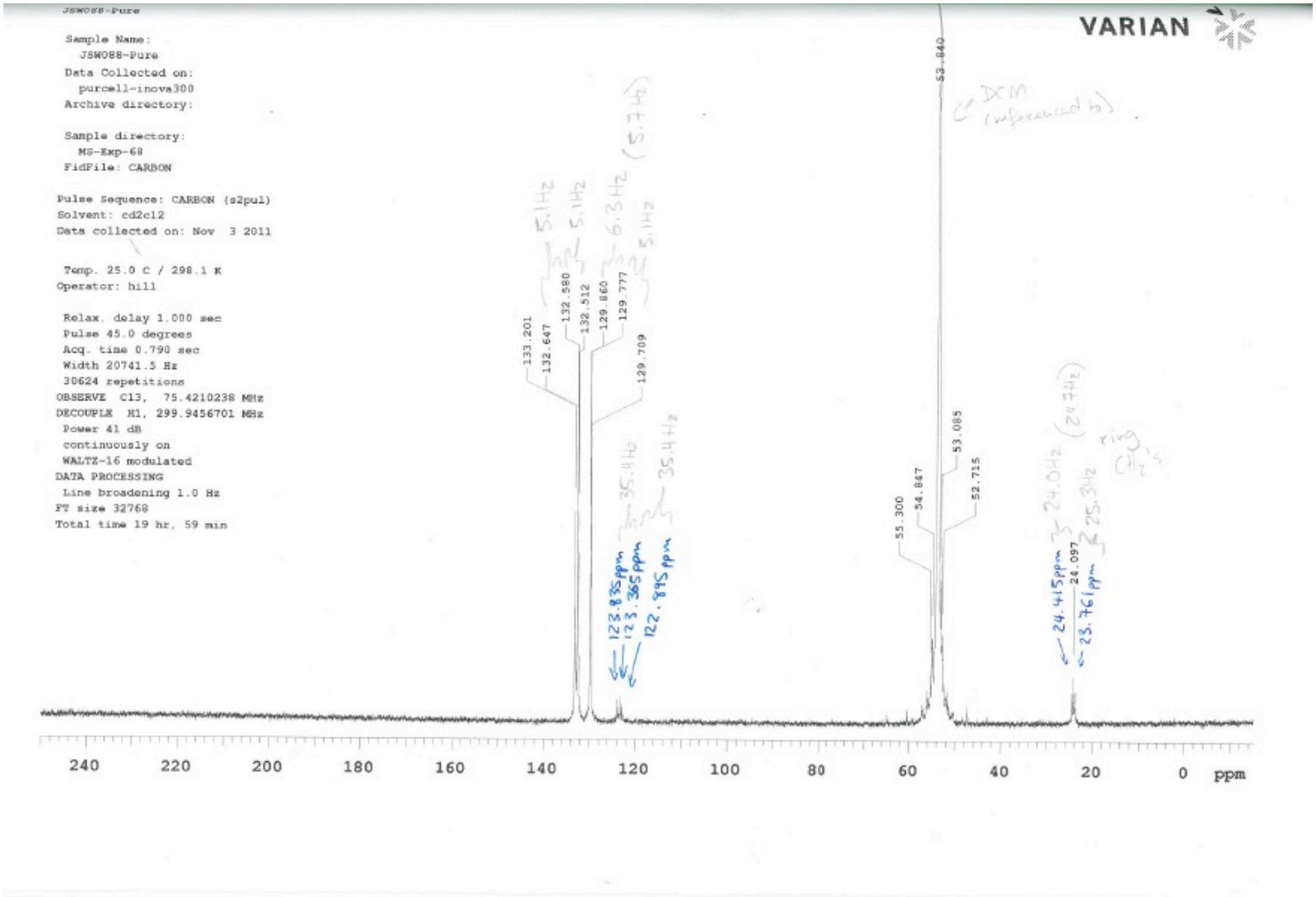
Compound 7 – $^{1}H\{^{11}B\}$ NMR spectrum (Expansion of BH_2 resonances)



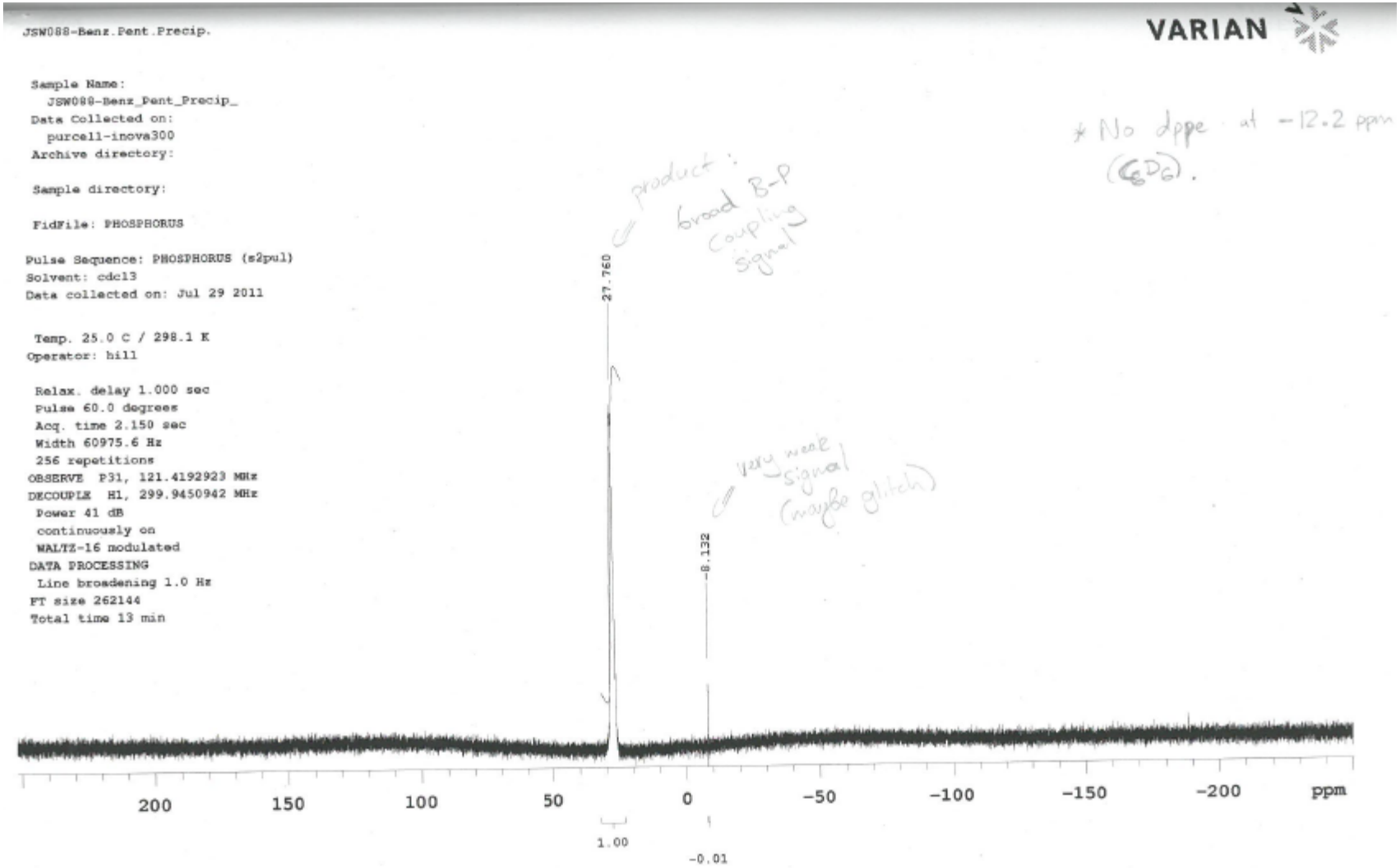
Compound 7 – $^{11}B\{^{1}H\}$ NMR spectrum



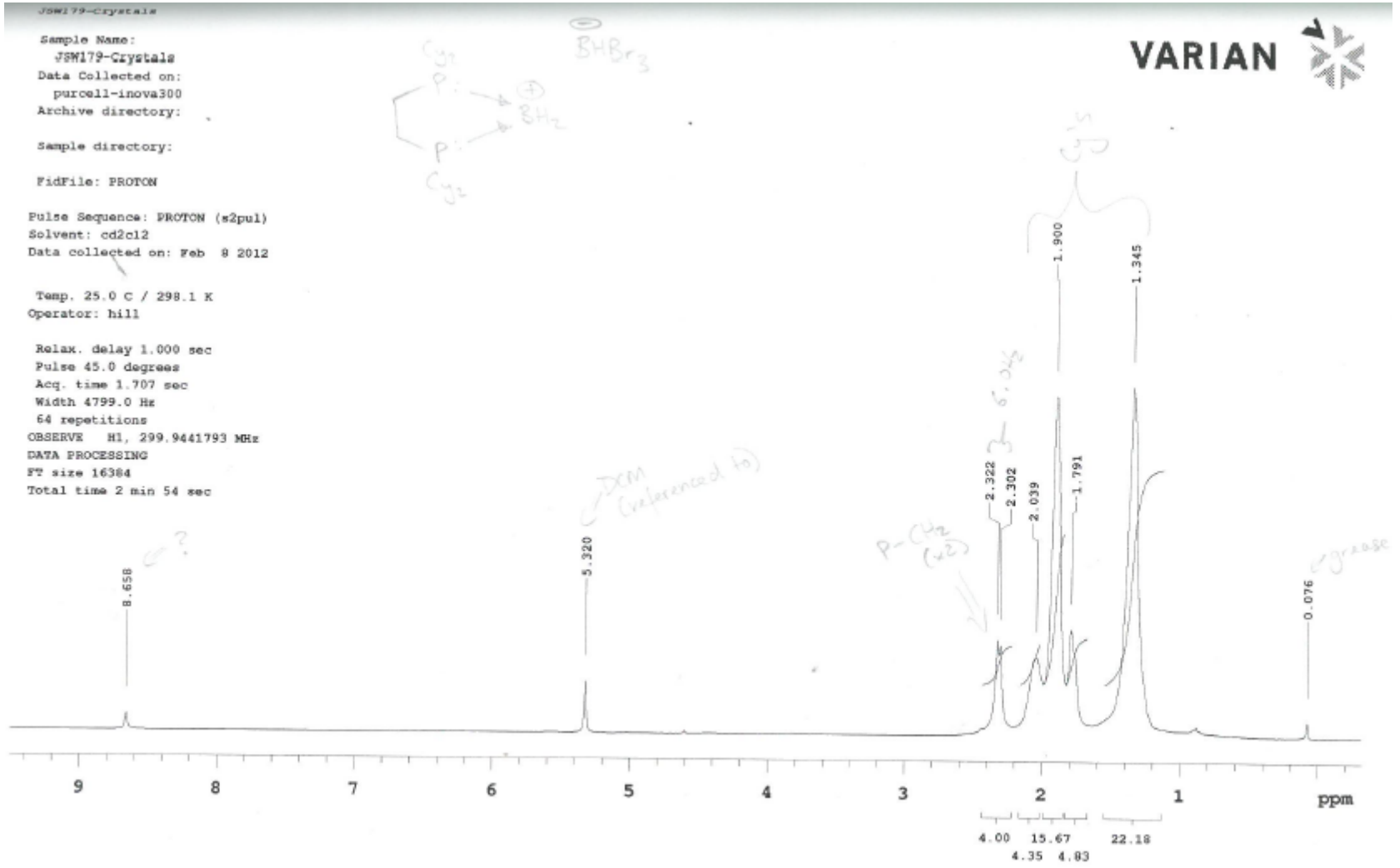
Compound 7 – ^{11}B NMR spectrum



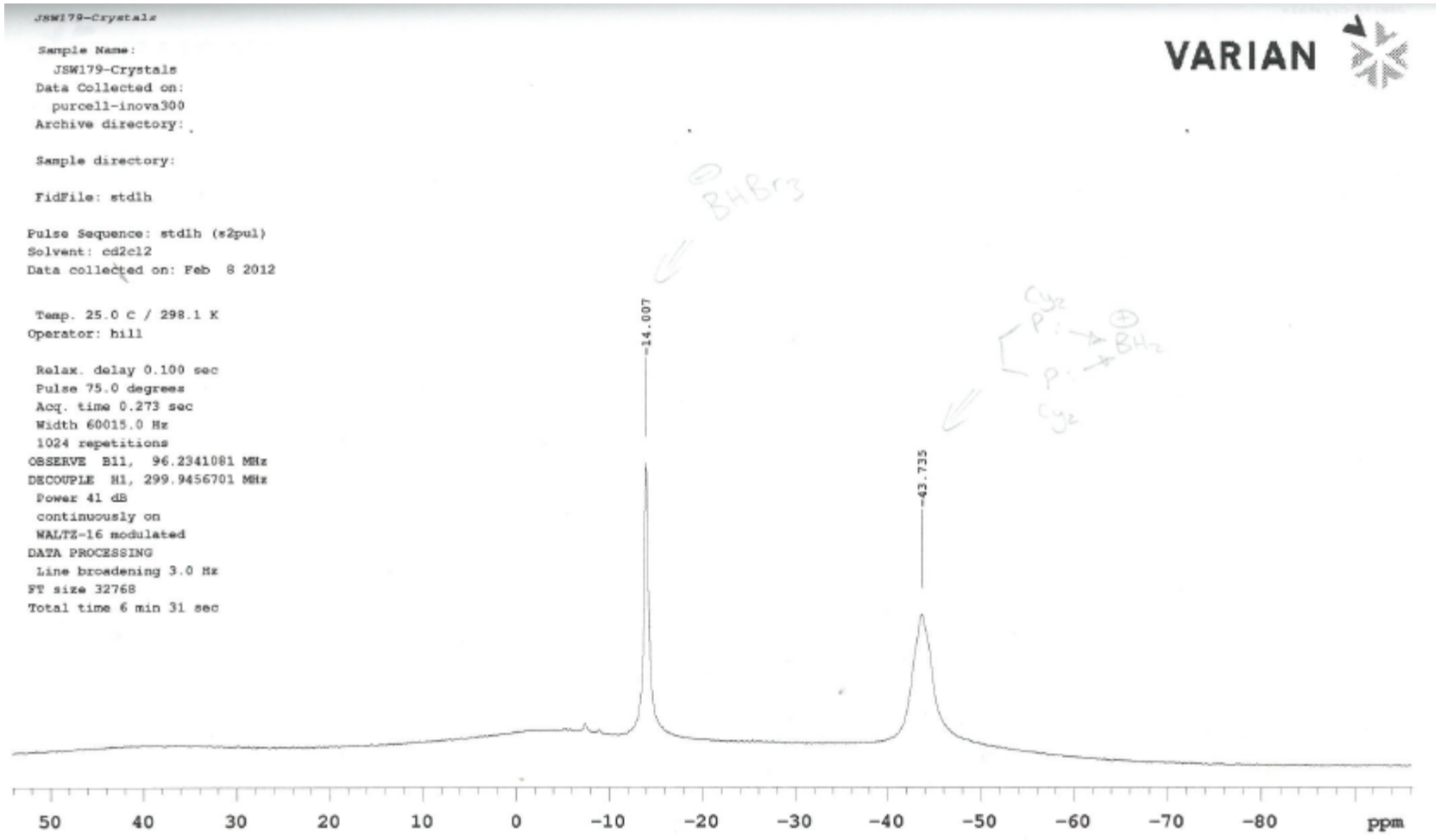
Compound 7 – $^{13}C\{^{1}H\}$ NMR spectrum



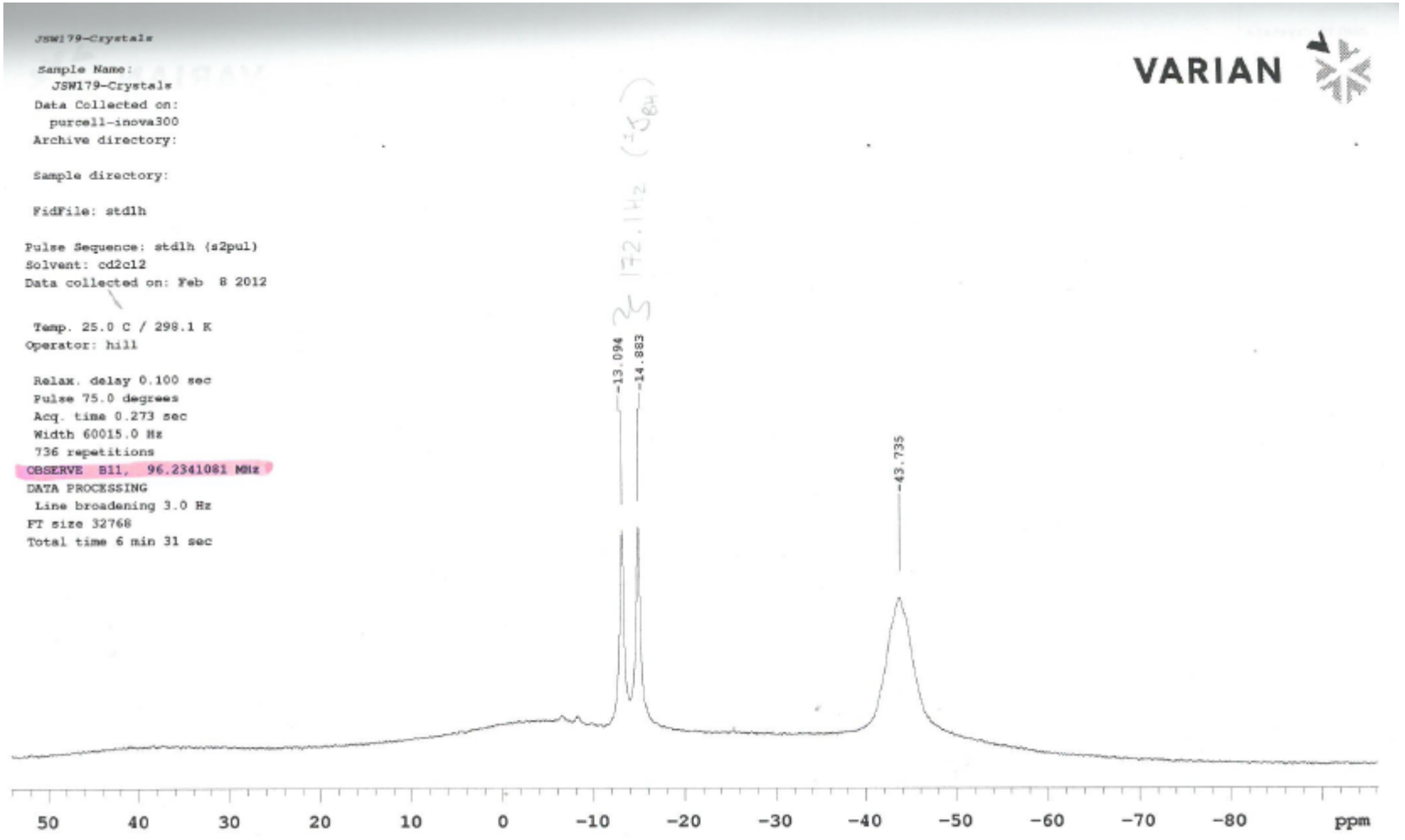
Compound 7 – $^{31}P\{^{1}H\}$ NMR spectrum



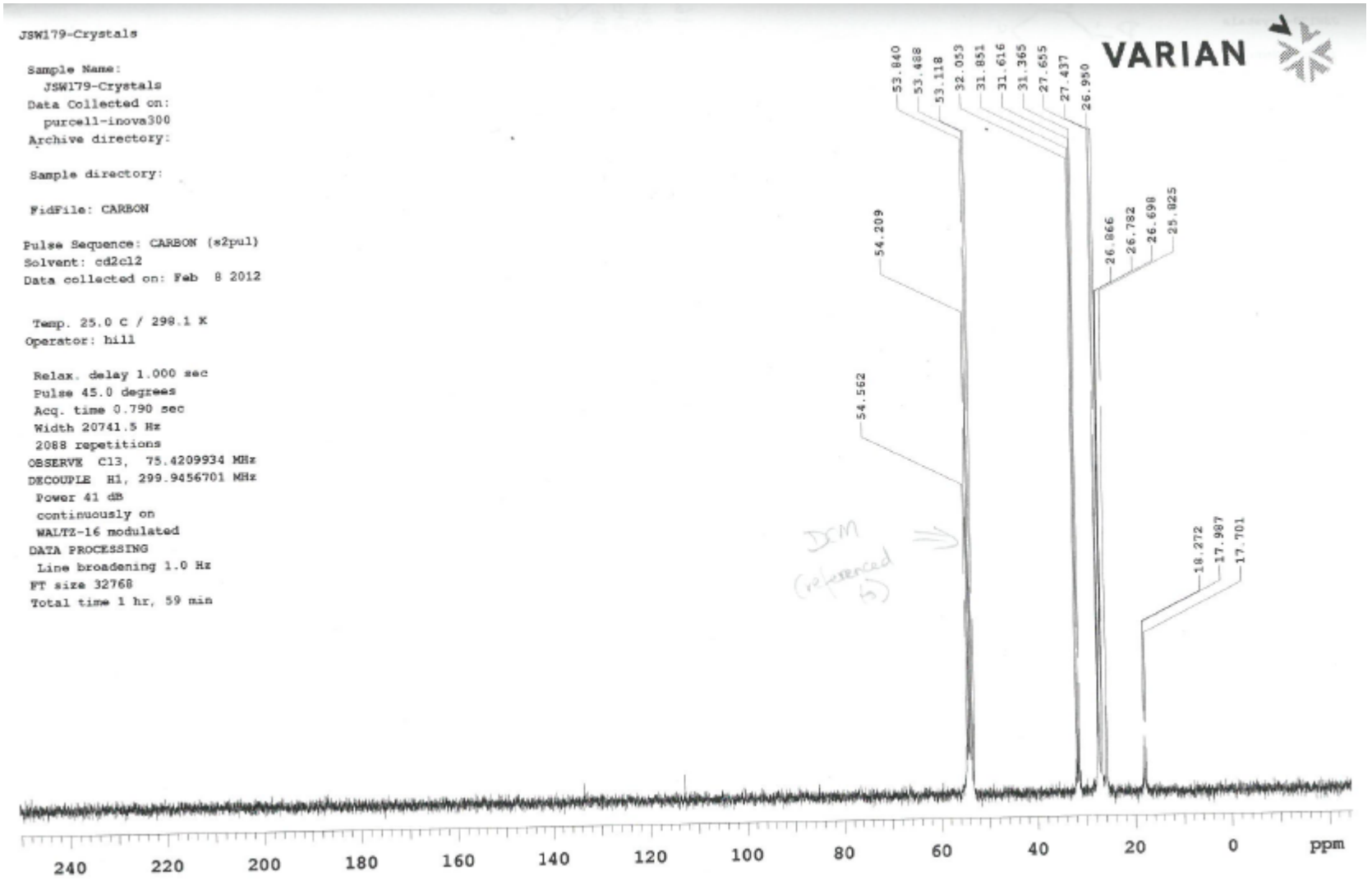
Compound 8 – ^{1}H NMR spectrum



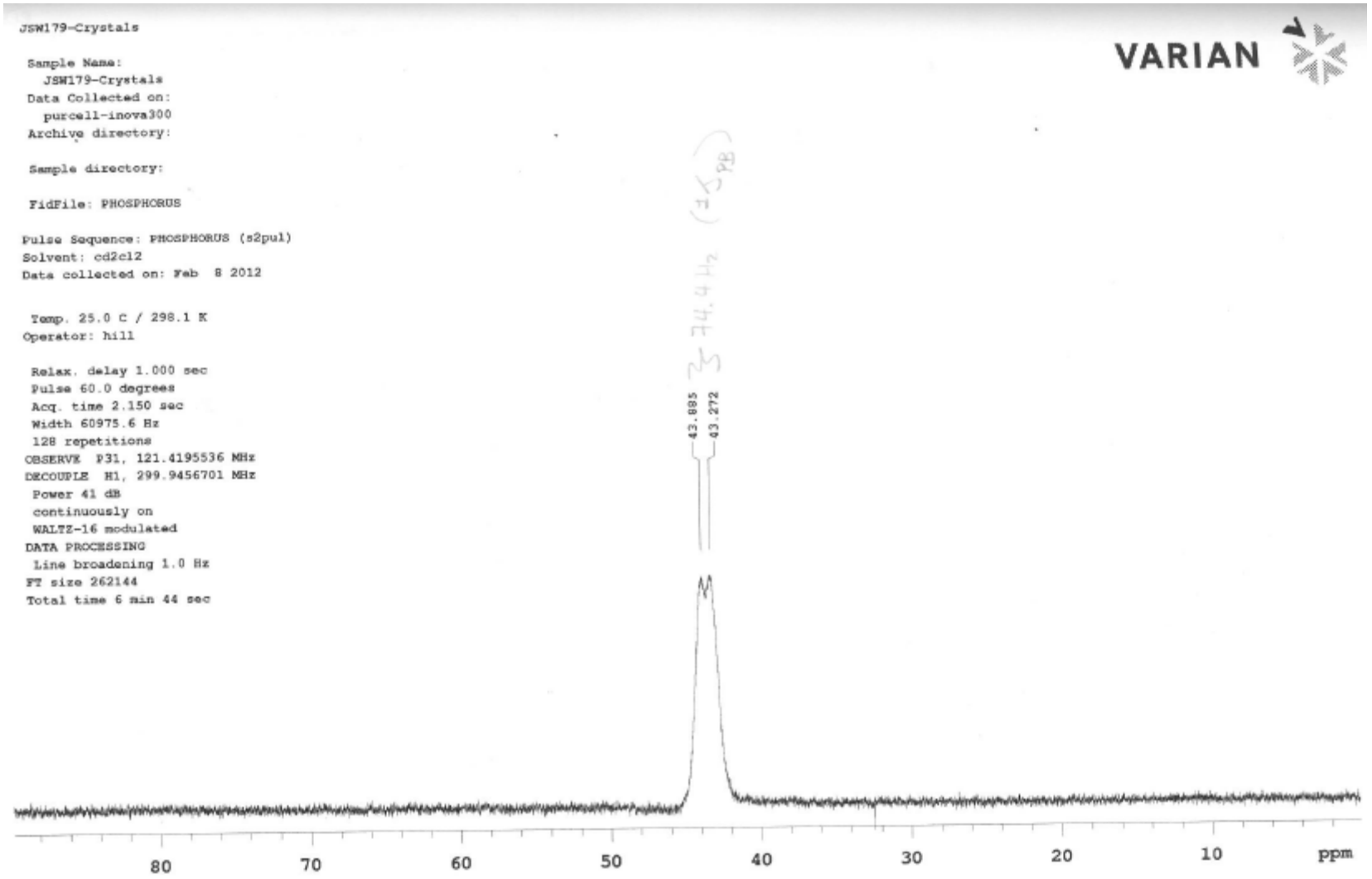
Compound 8 – $^{11}B\{^{1}H\}$ NMR spectrum



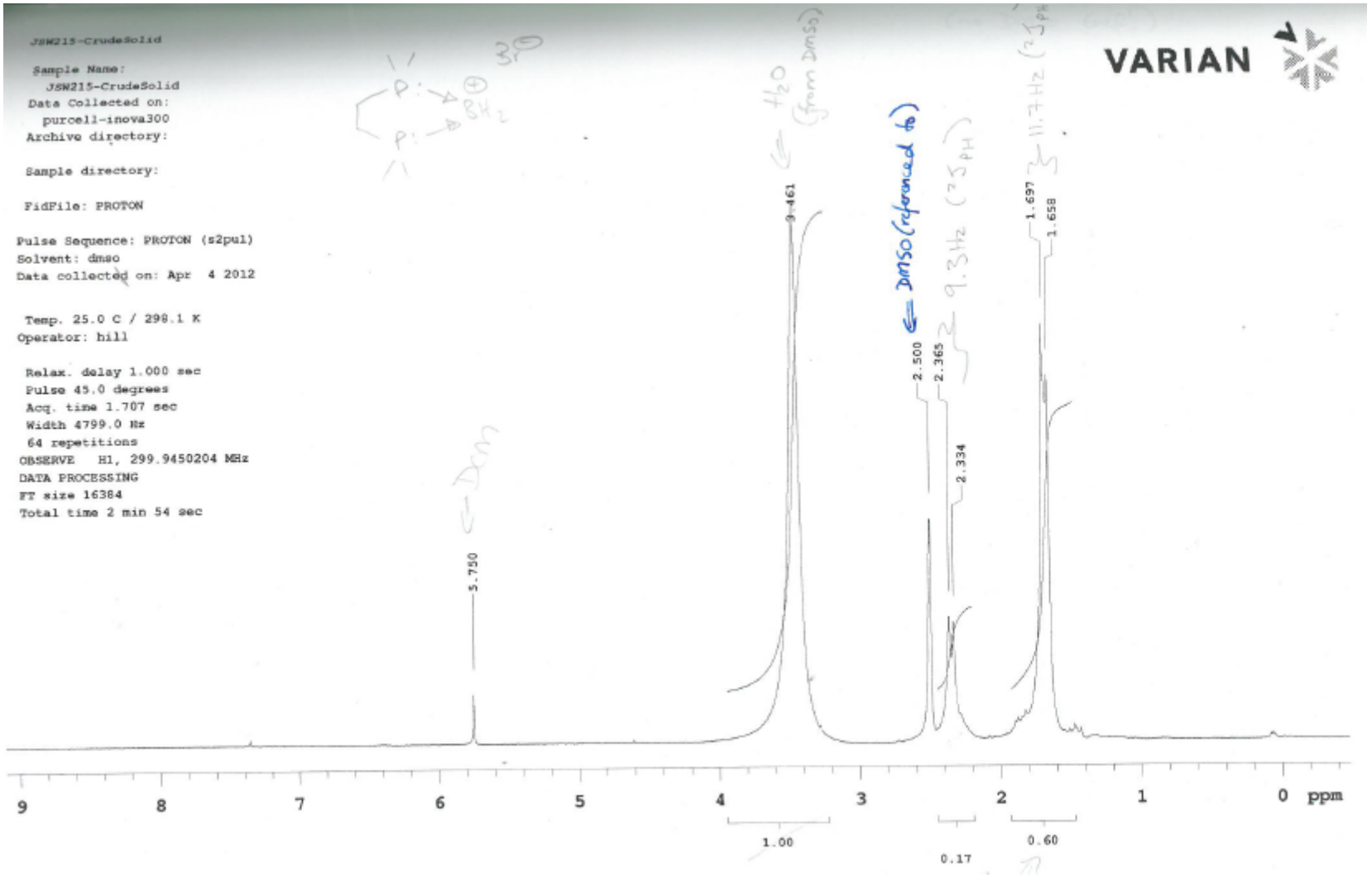
Compound 8 – ^{11}B NMR spectrum



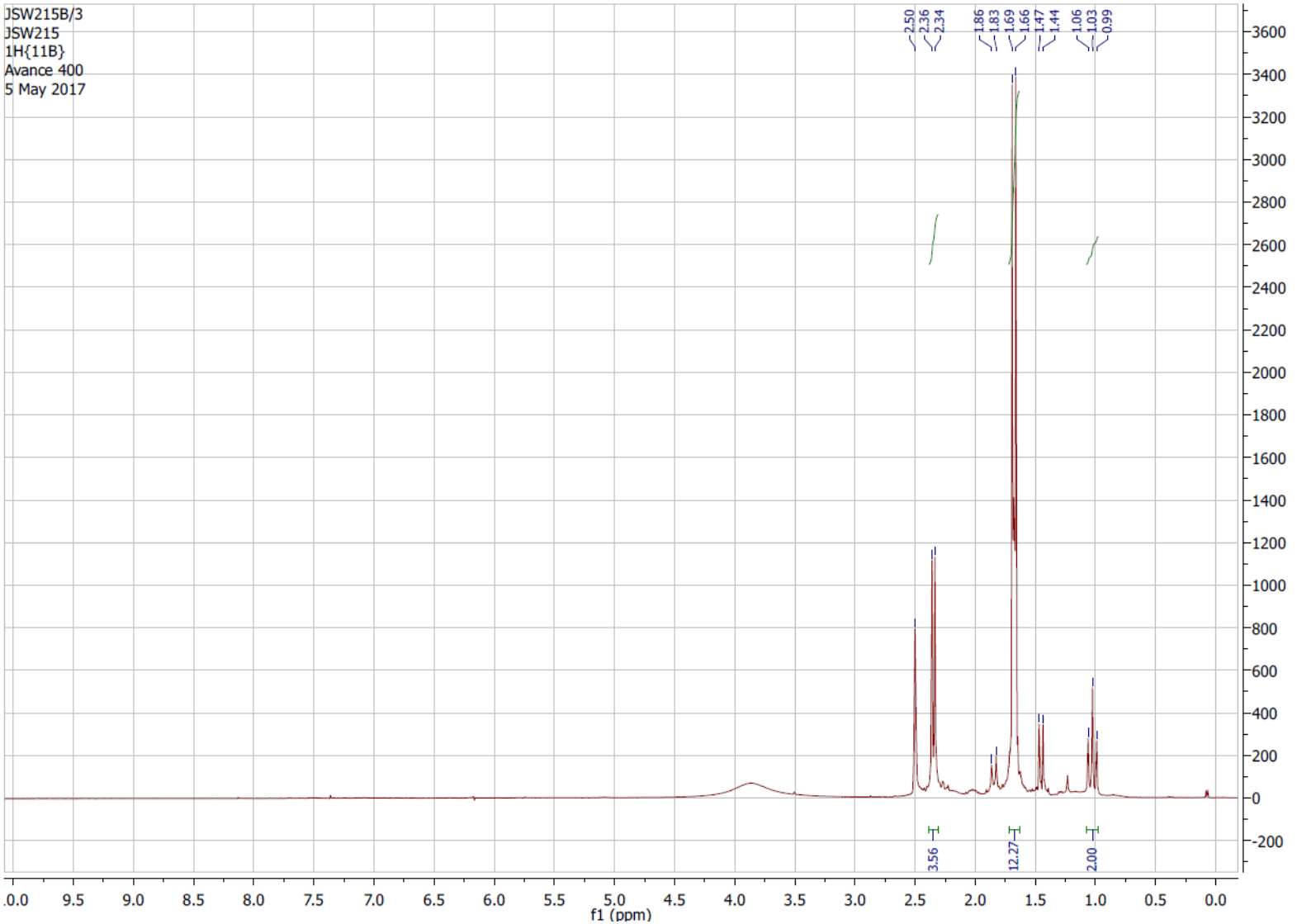
Compound 8 – $^{13}C\{^{1}H\}$ NMR spectrum



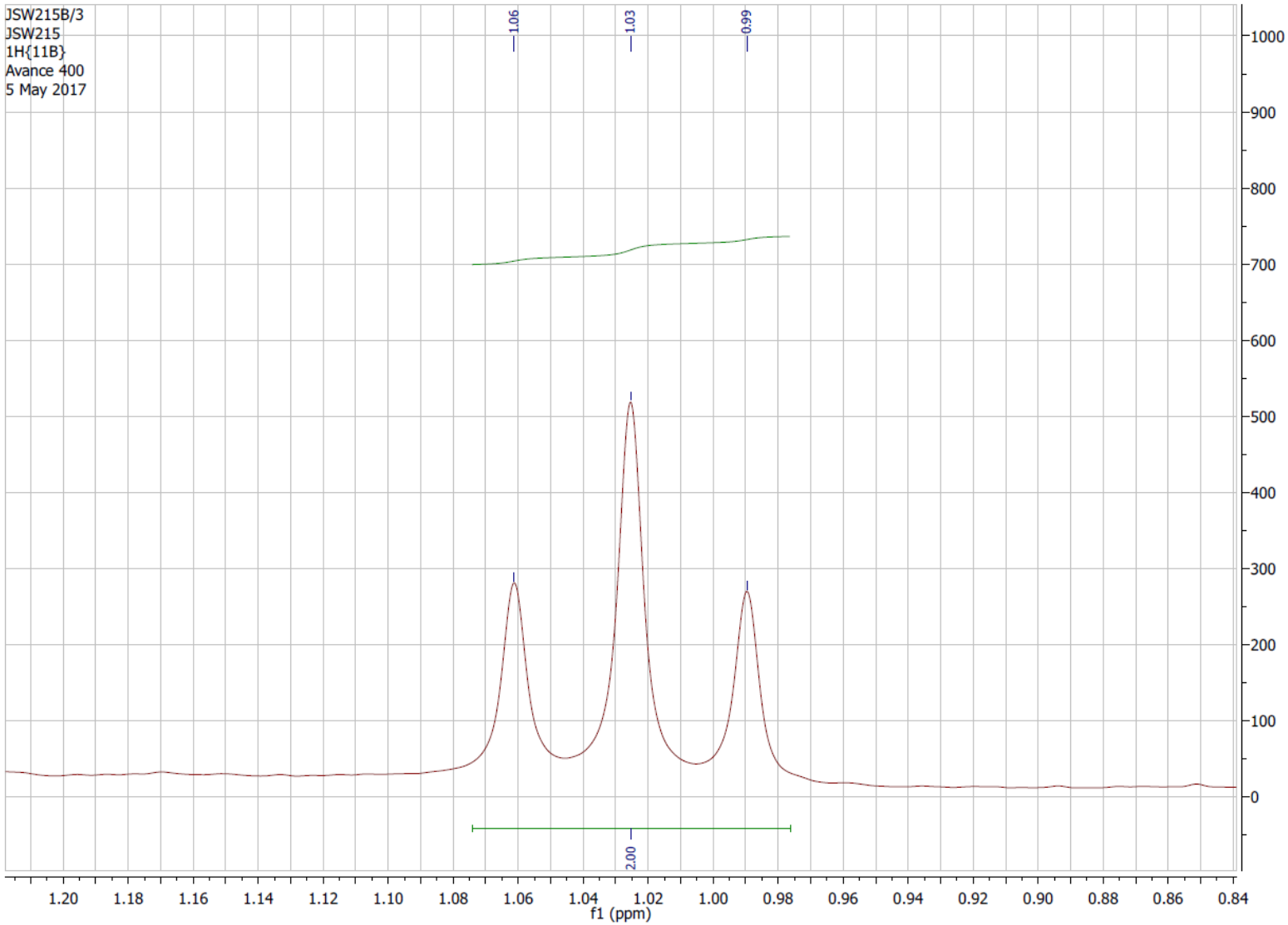
Compound 8 – $^{31}P\{^{1}H\}$ NMR spectrum



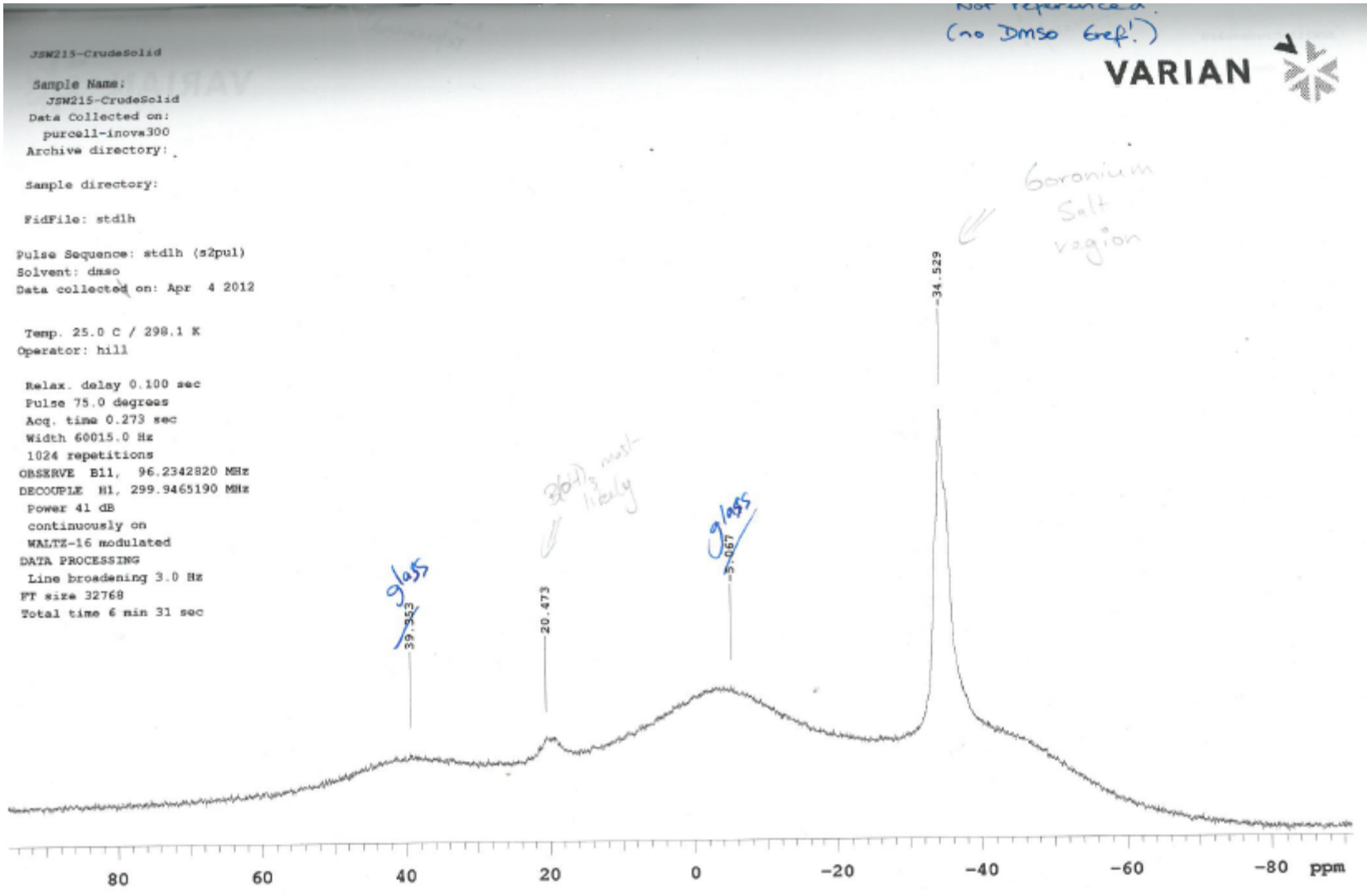
Compound 9 – ^{1}H NMR spectrum



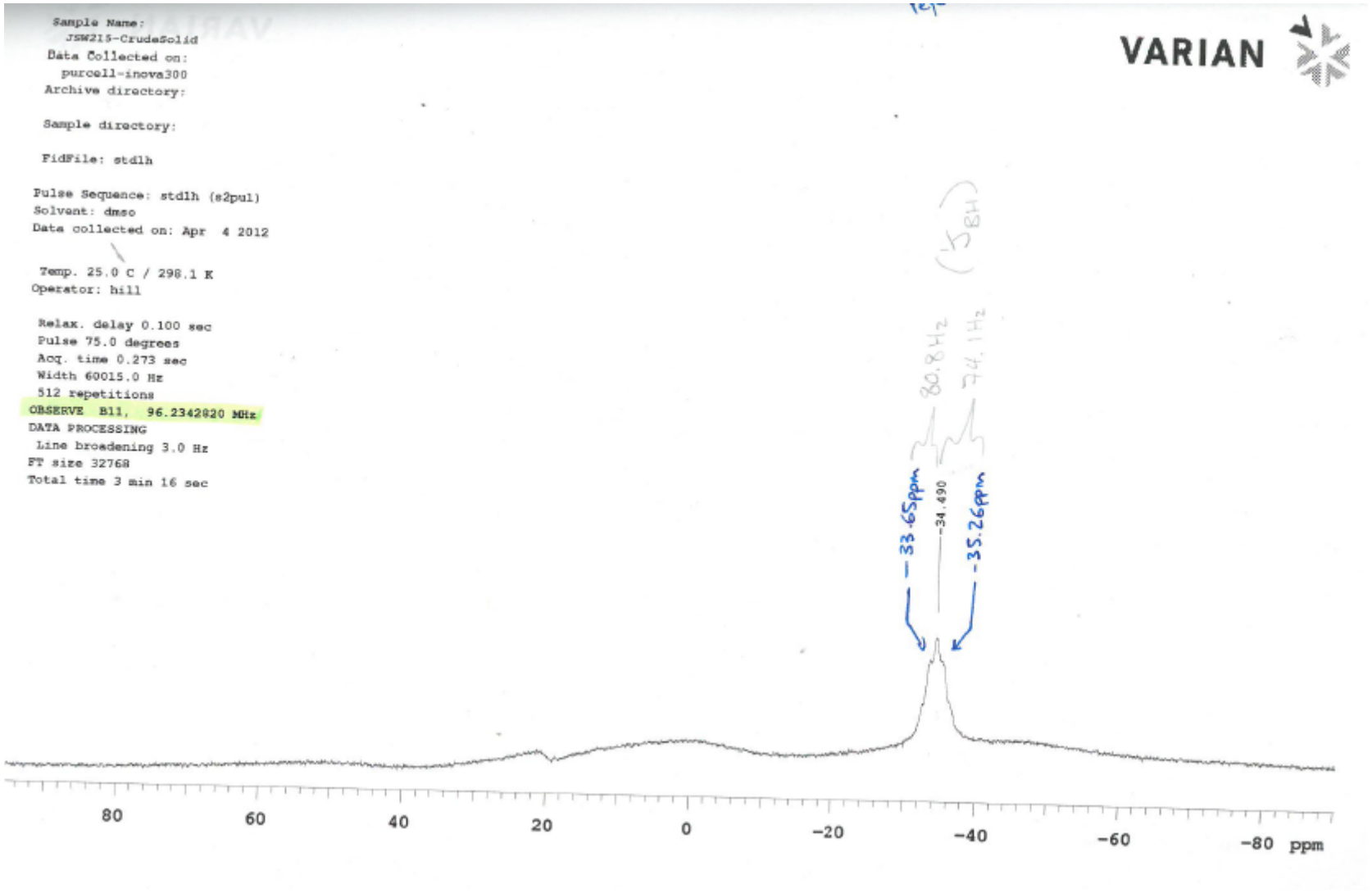
Compound 9 – $^{1}H\{^{11}B\}$ NMR spectrum



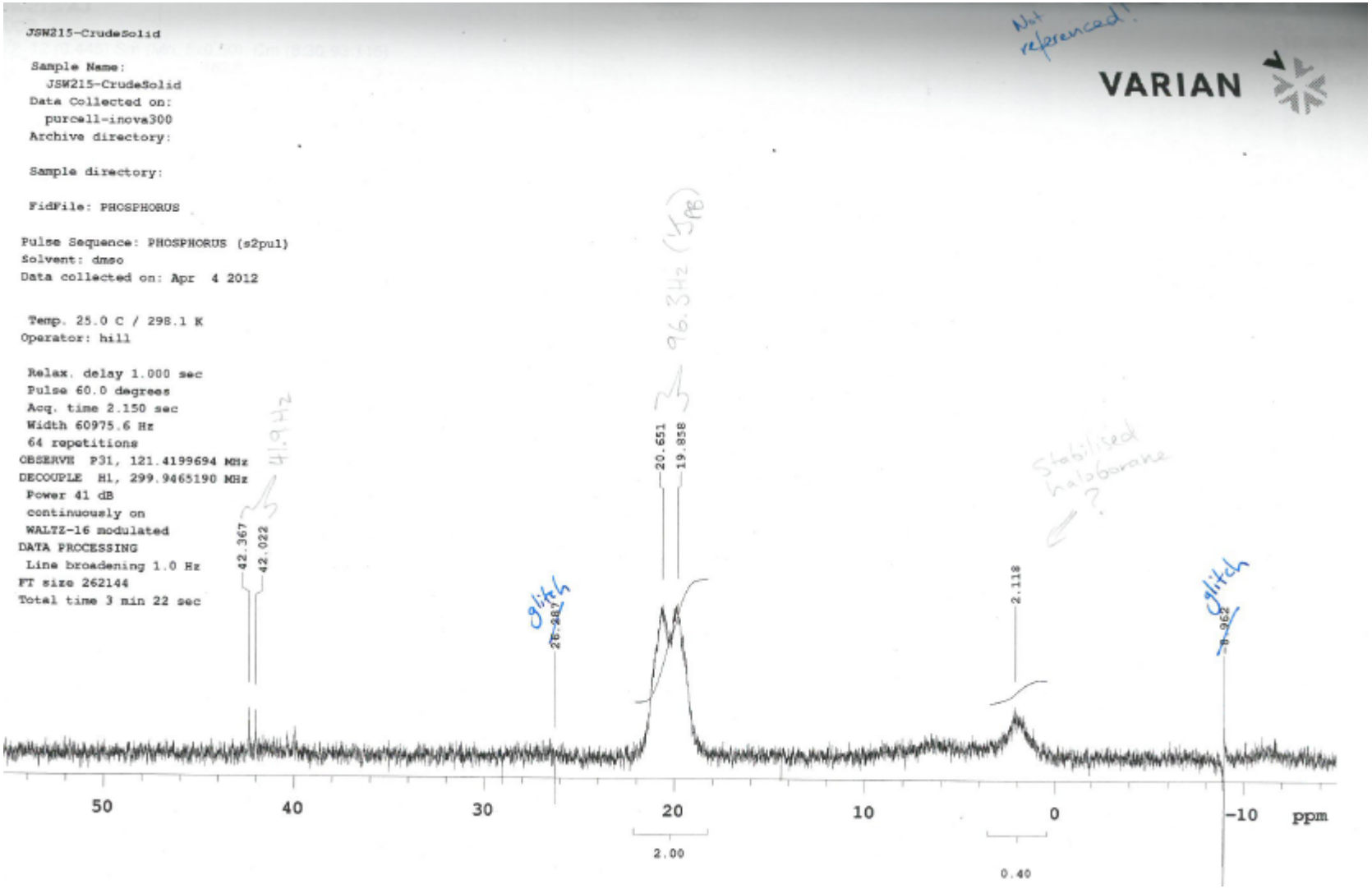
Compound 9 – $^{1}H\{^{11}B\}$ NMR spectrum (Expansion of BH_2 resonance)



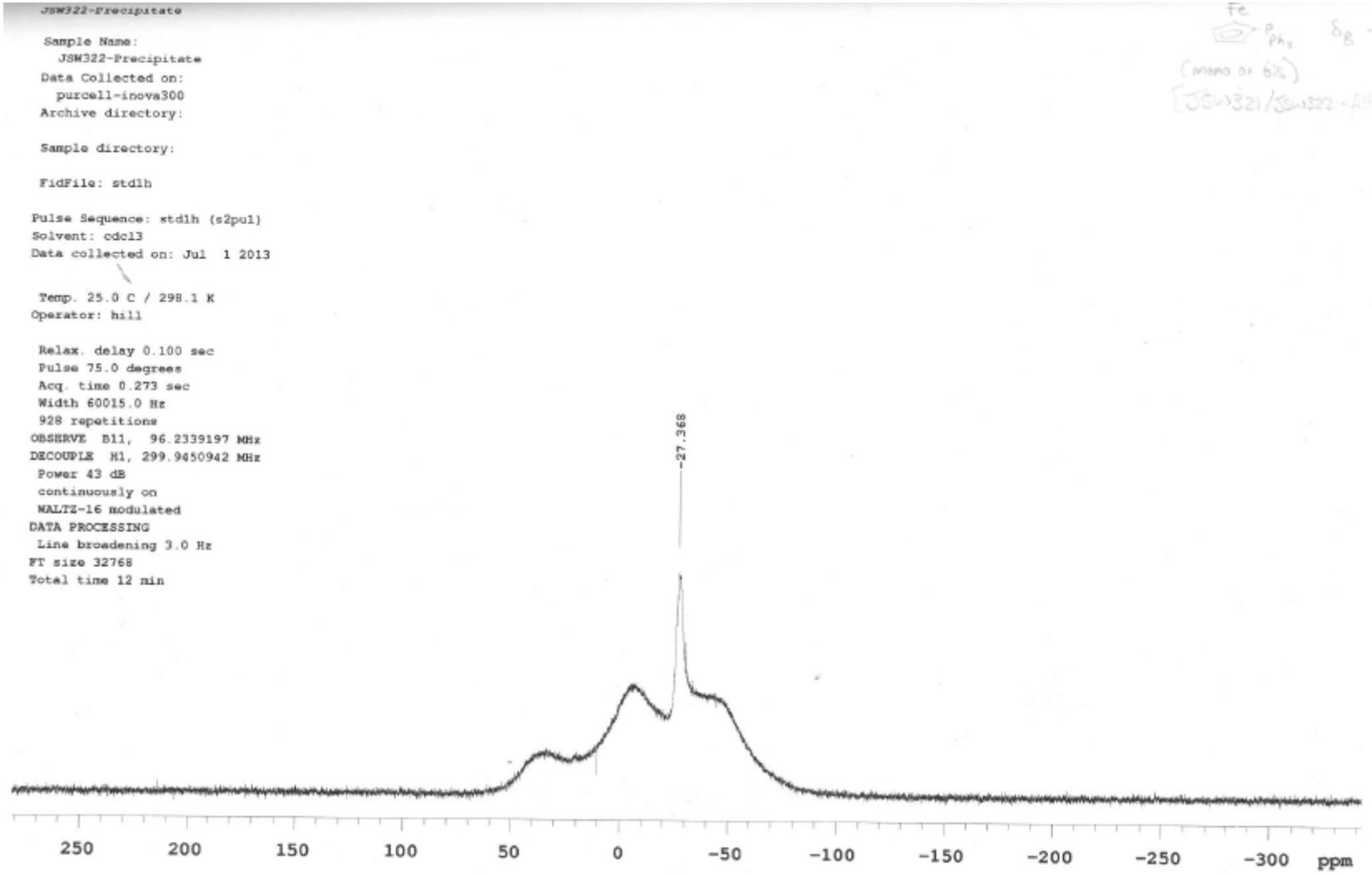
Compound 9 – $^{11}B\{^{1}H\}$ NMR spectrum



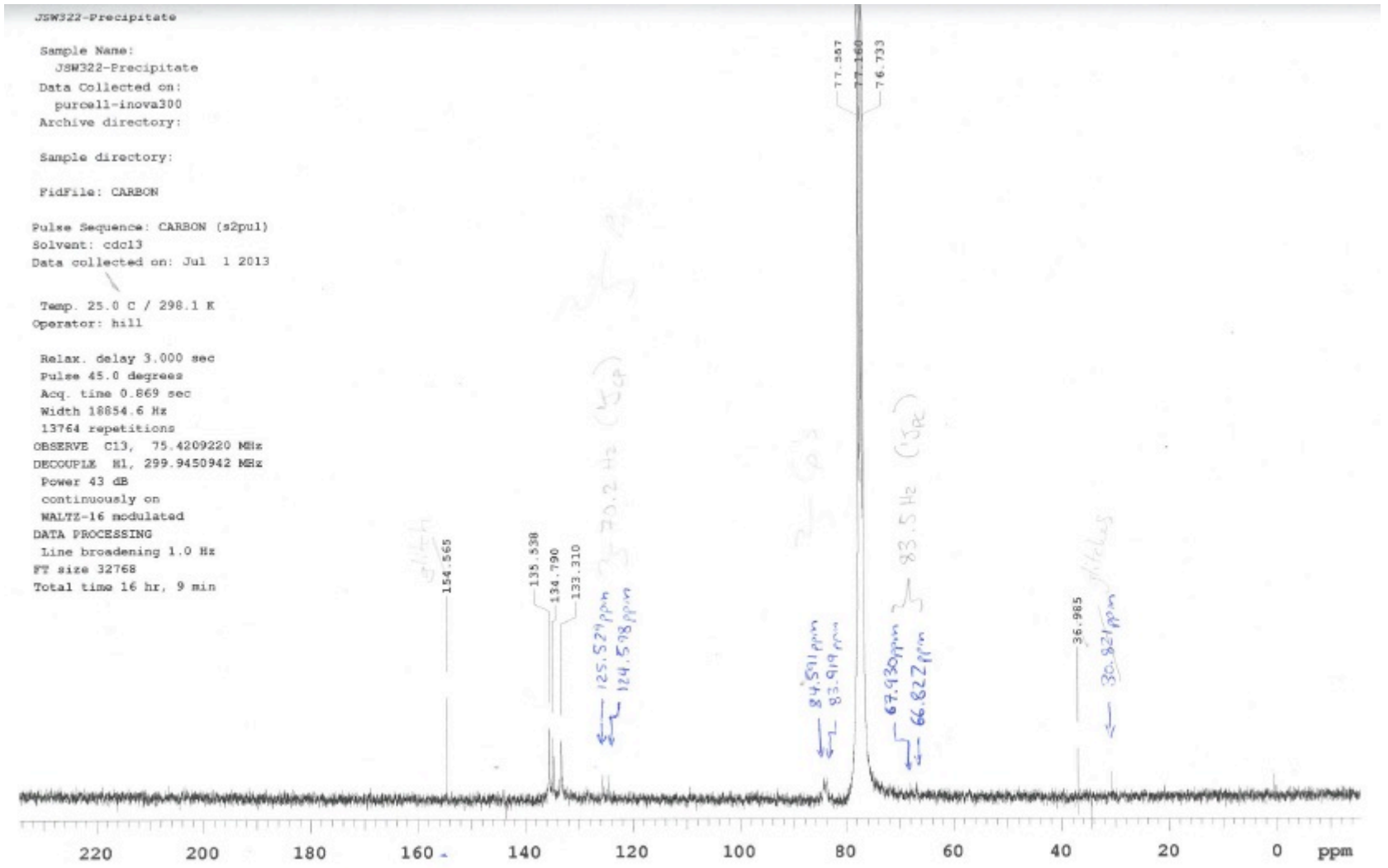
Compound 9 – ^{11}B NMR spectrum



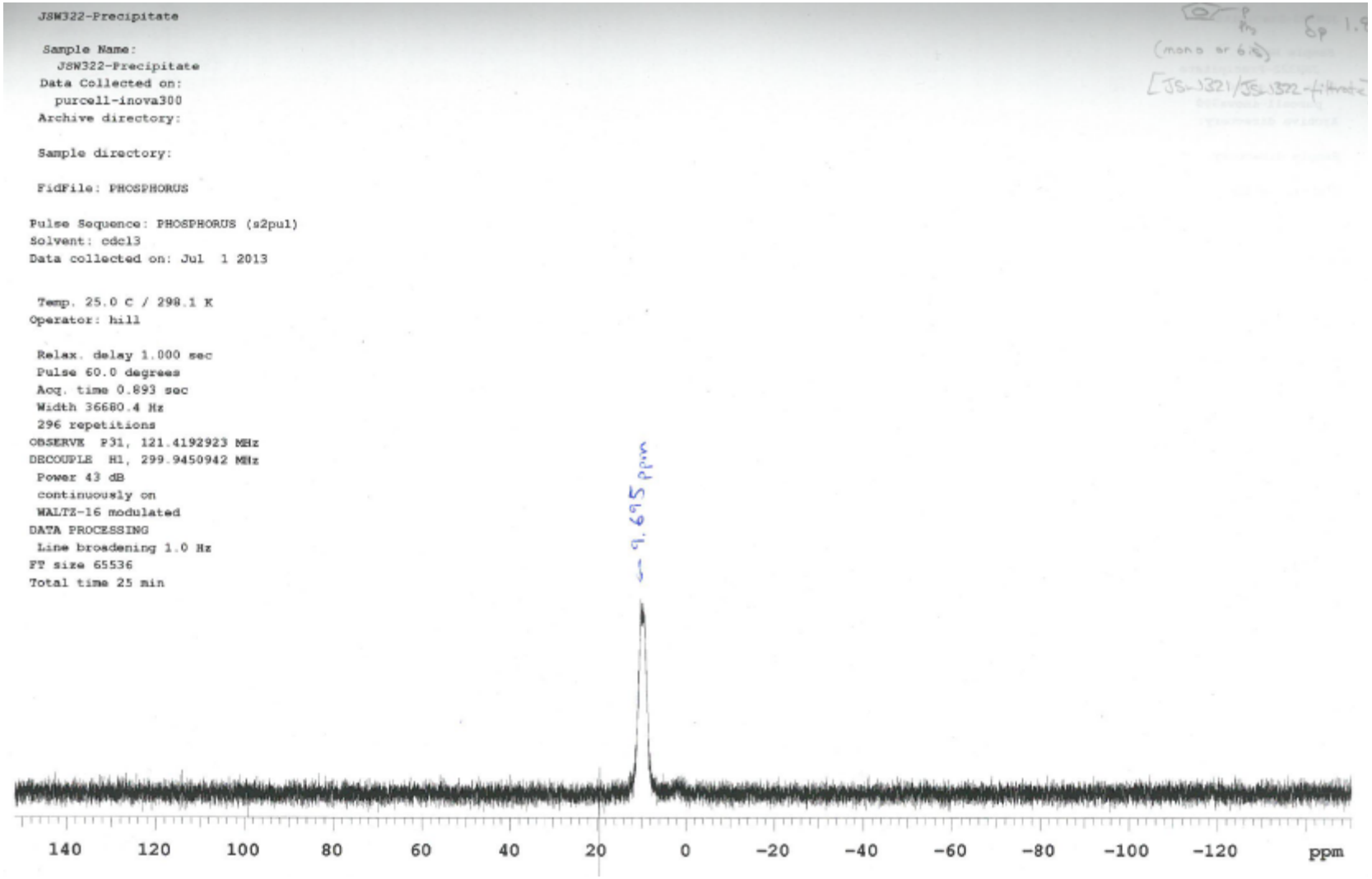
Compound 9 – $^{31}P\{^{1}H\}$ NMR spectrum



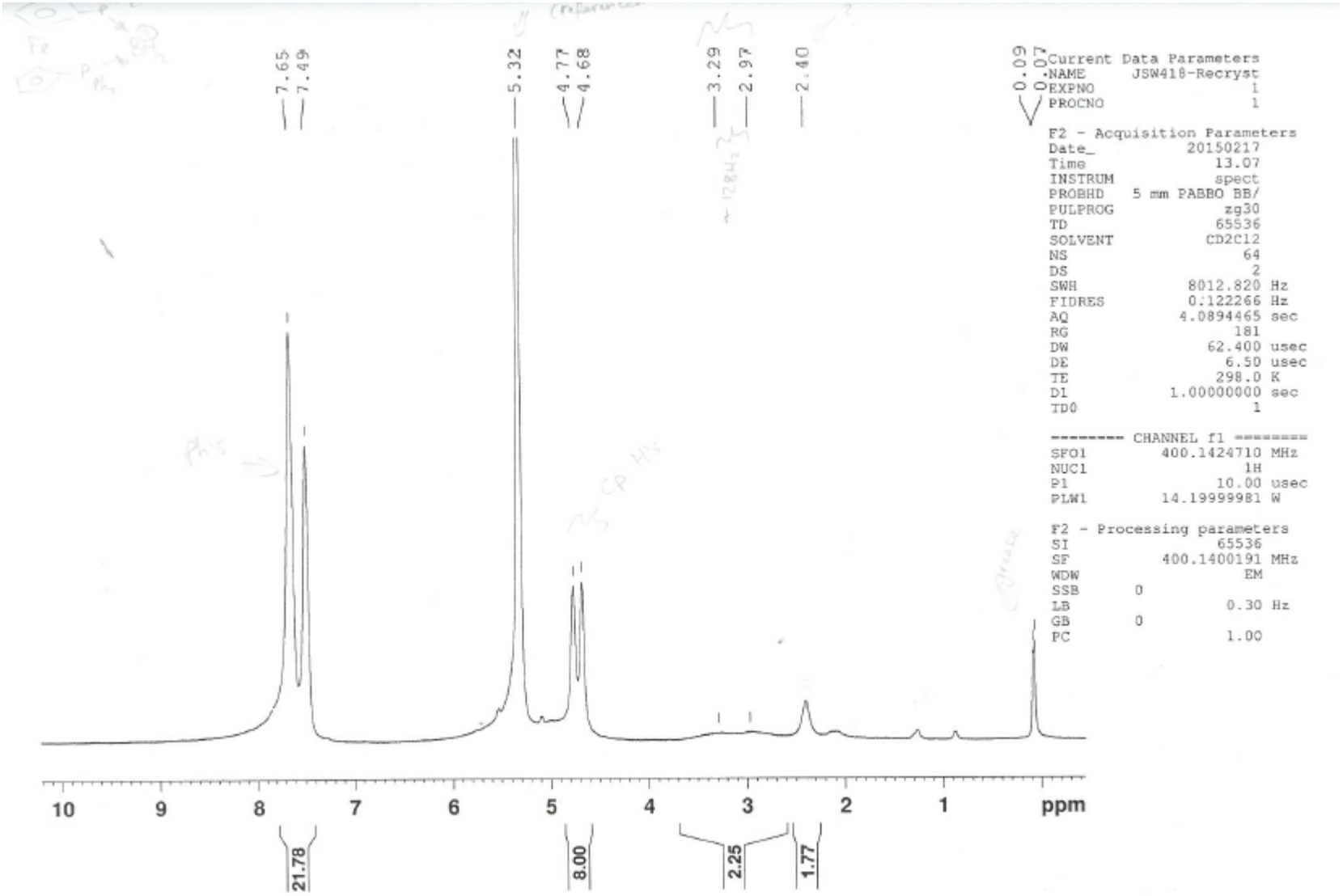
Compound 10 – $^{11}B\{^{1}H\}$ NMR spectrum



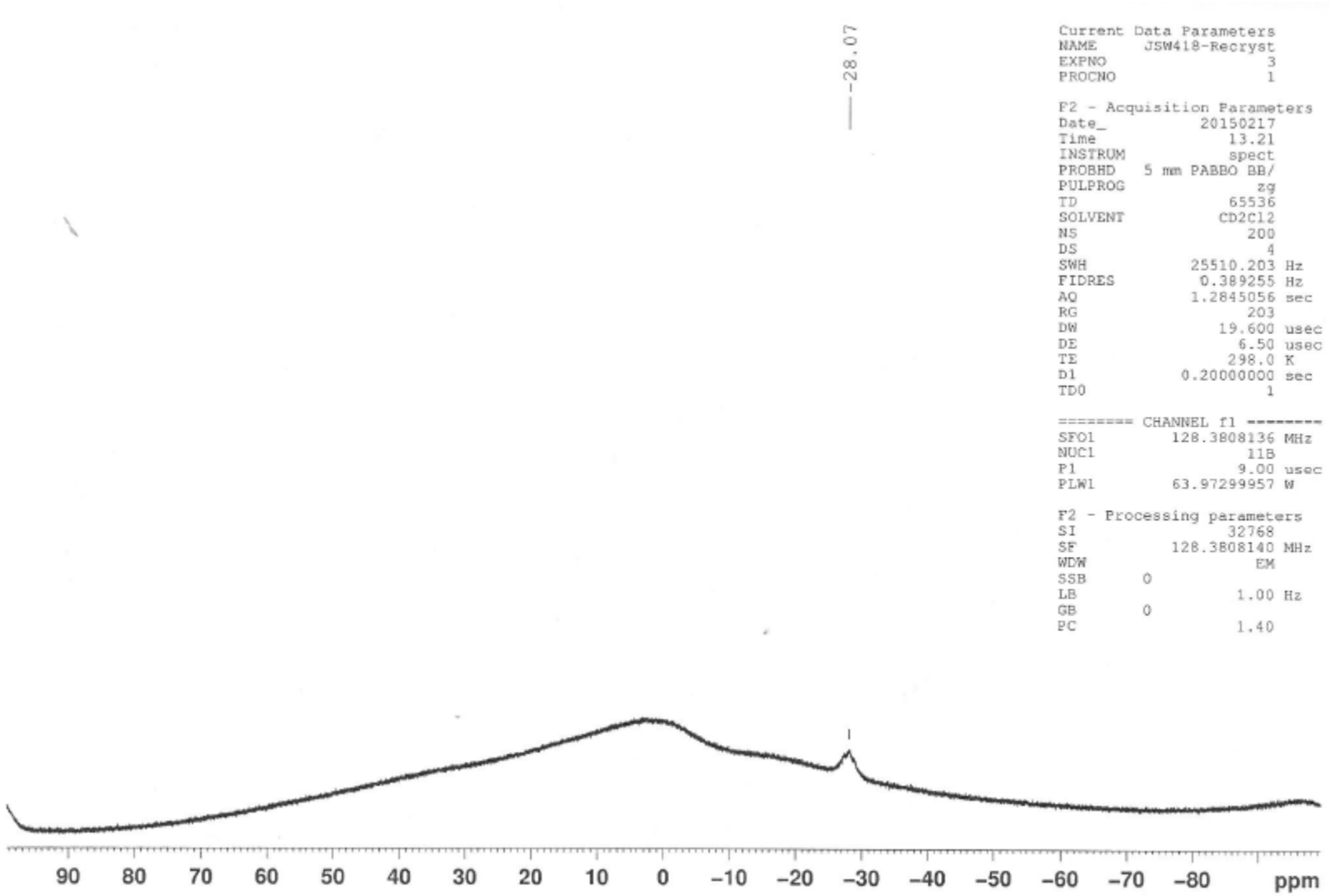
Compound 10 – $^{13}C\{^{1}H\}$ NMR spectrum



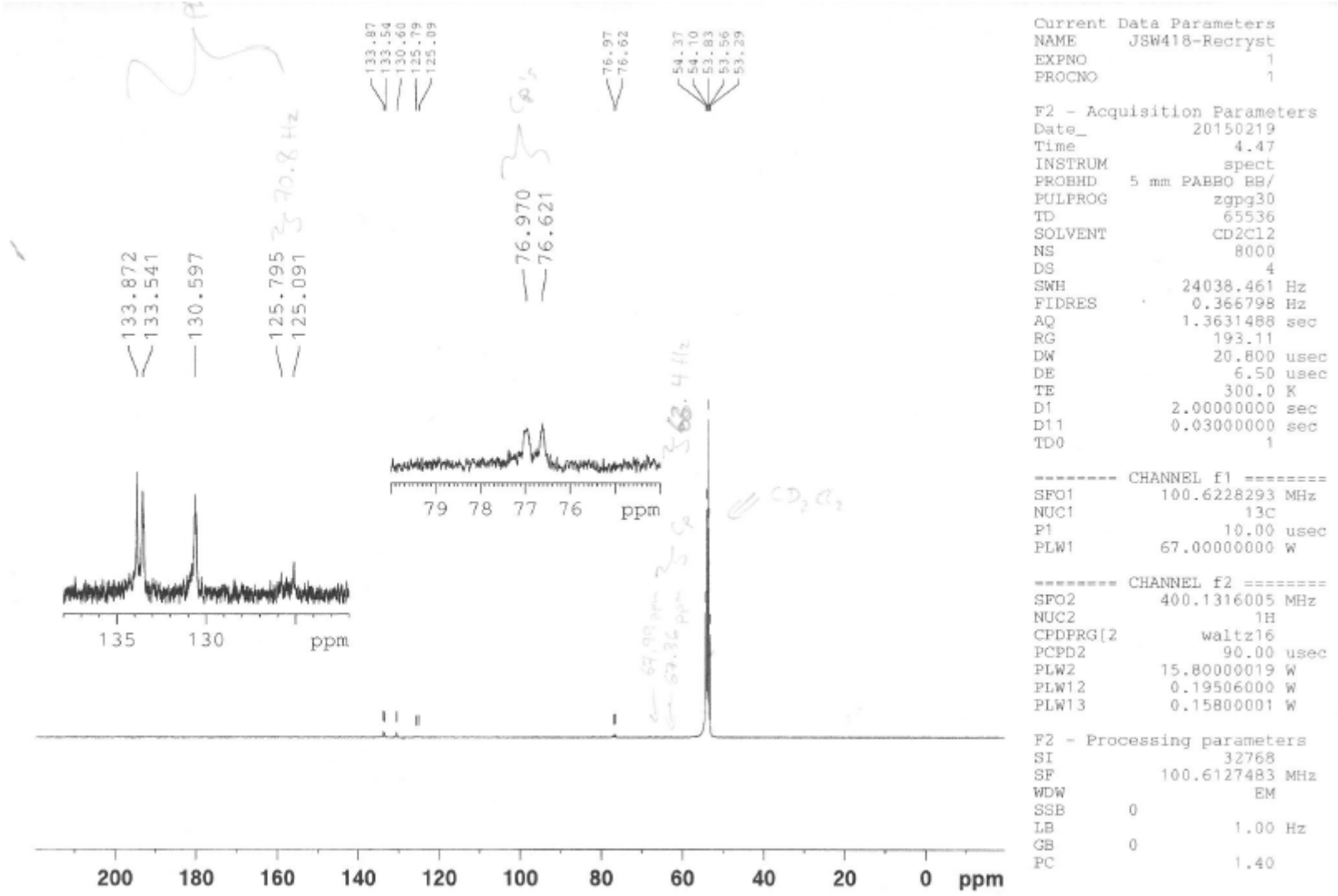
Compound 10 – $^{31}P\{^{1}H\}$ NMR spectrum



Compound 11 – ^{1}H NMR spectrum



Compound 11 – $^{11}B\{^{1}H\}$ NMR spectrum

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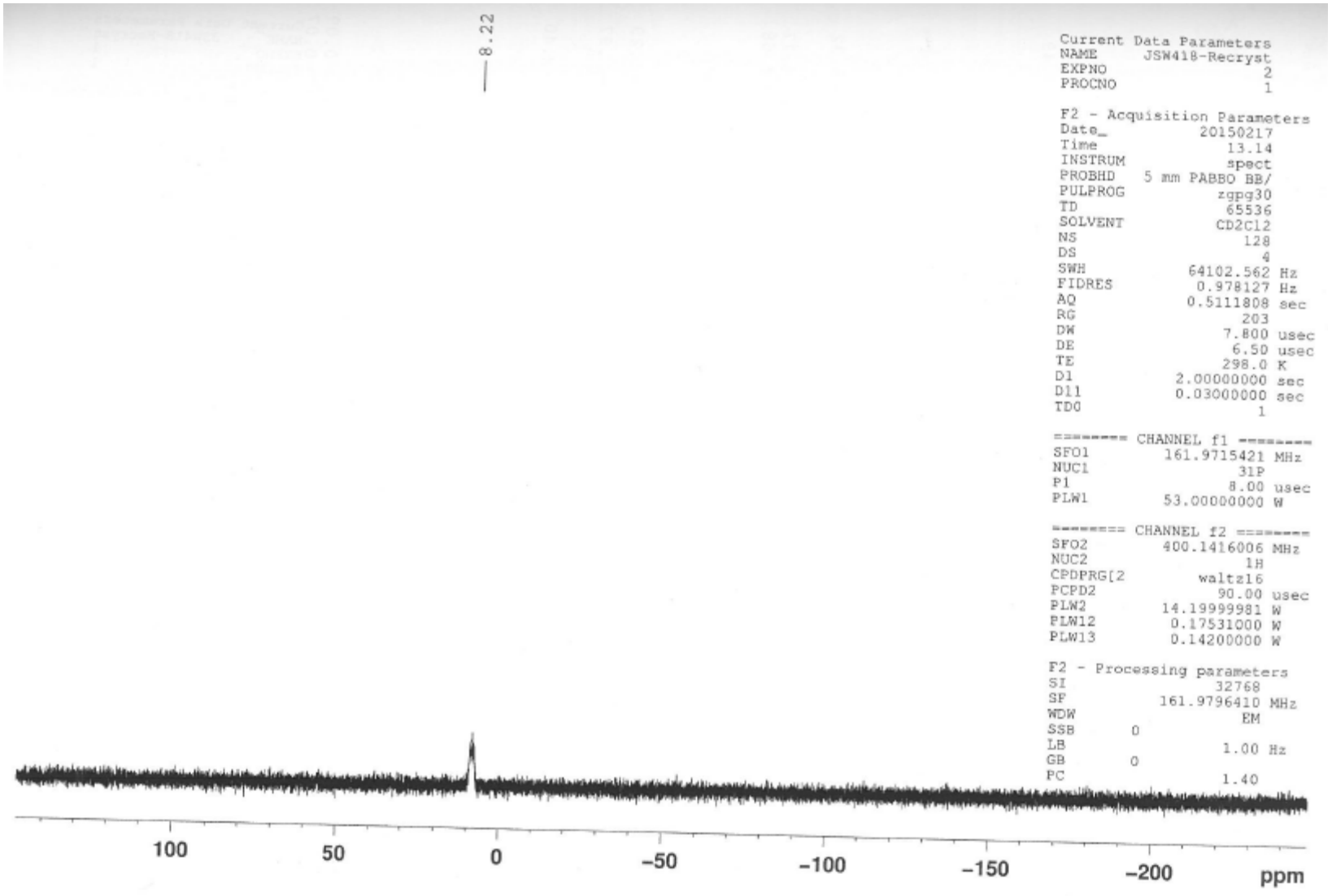
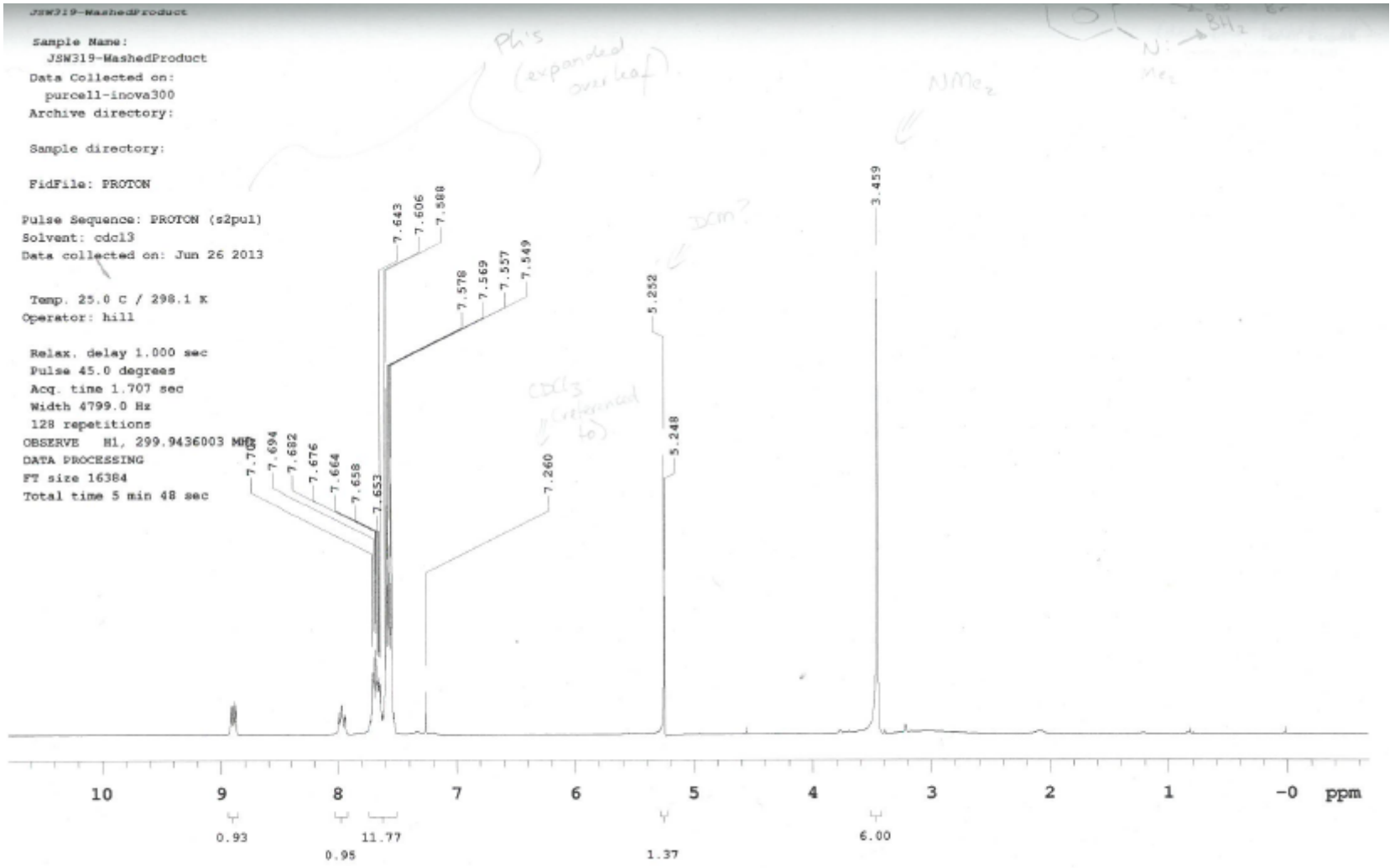
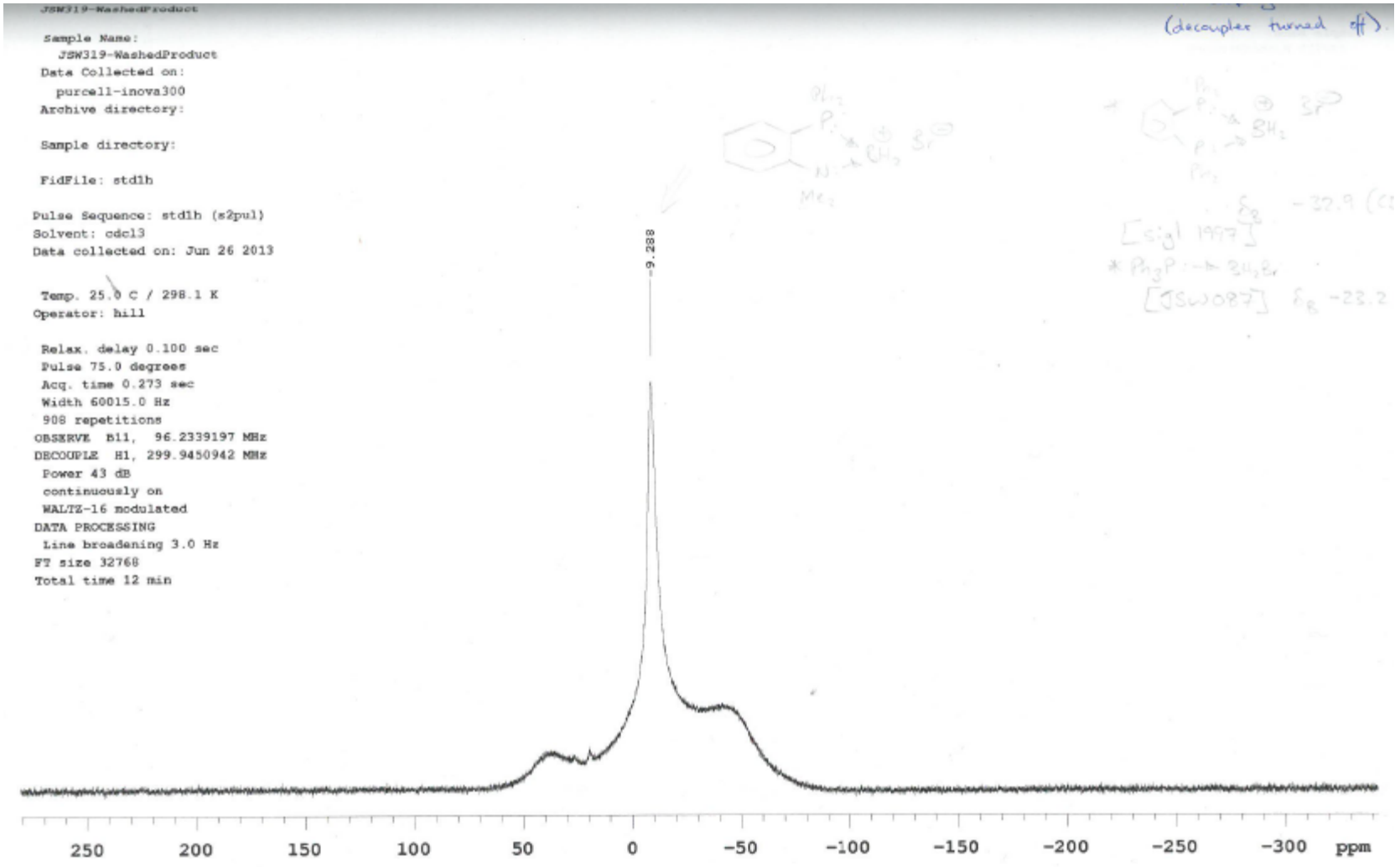
Compound 11 – $^{13}C\{^{1}H\}$ NMR spectrum



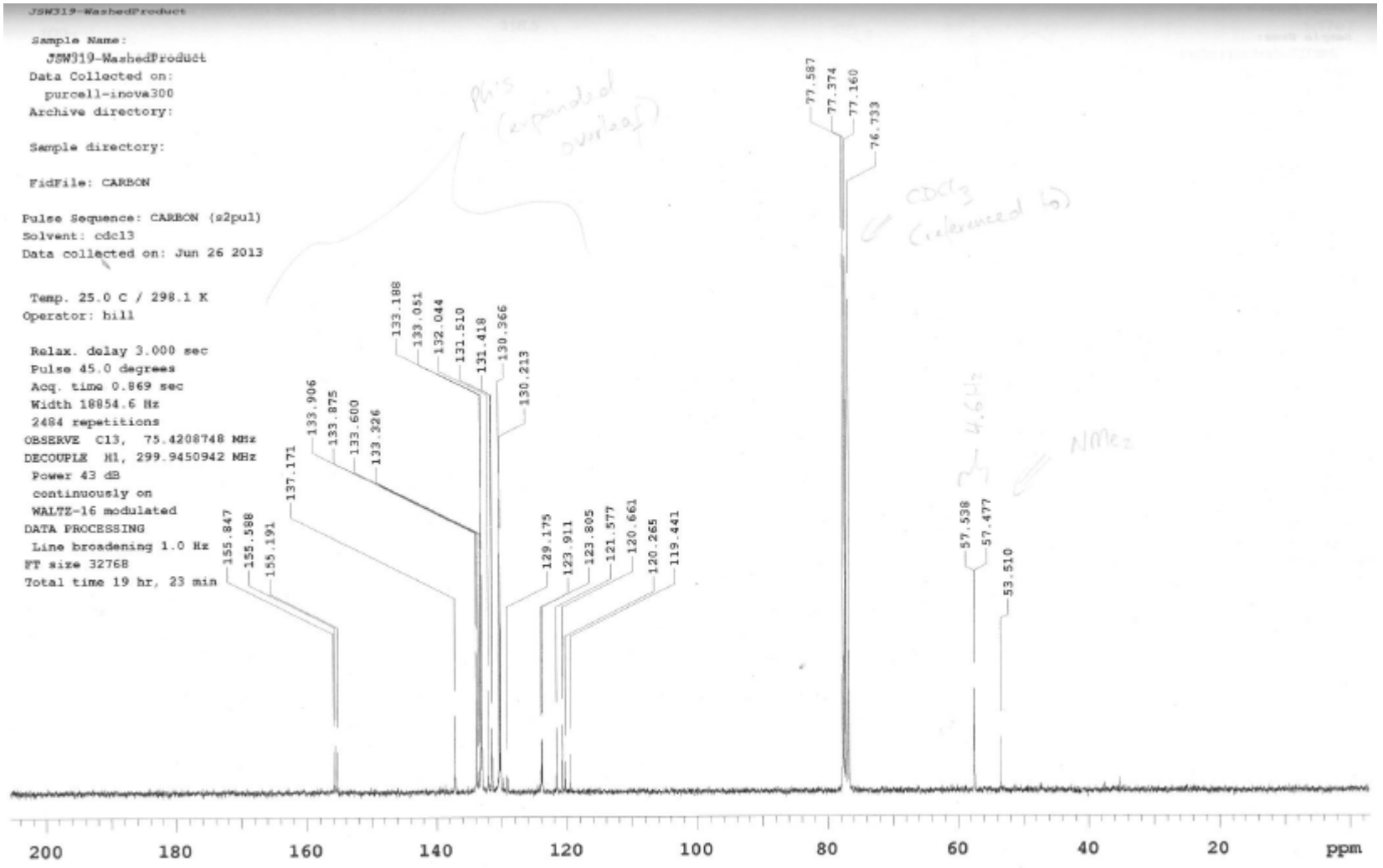
Compound 11 – $^{31}P\{^{1}H\}$ NMR spectrum



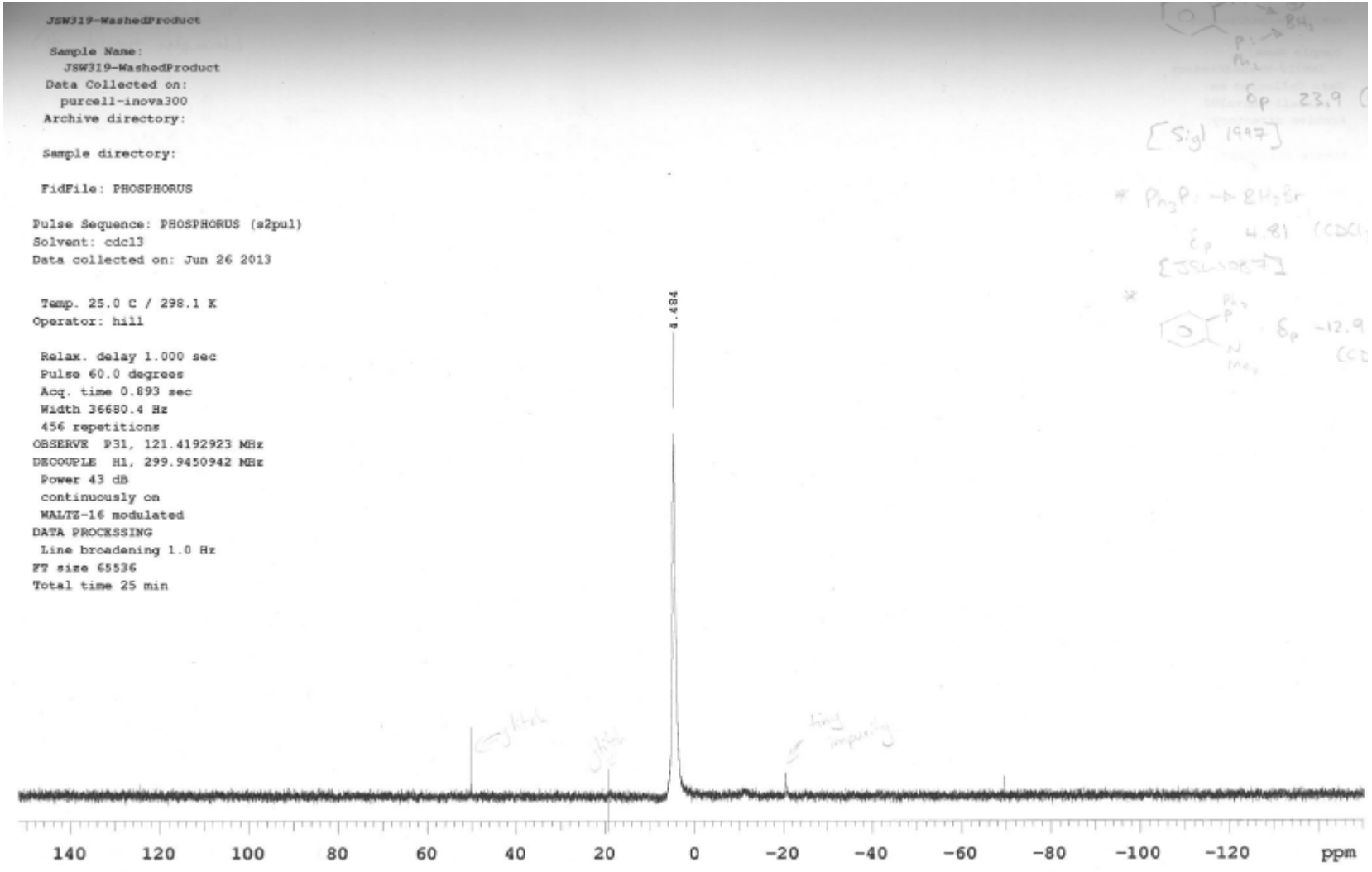
Compound 12 – ^{1}H NMR spectrum



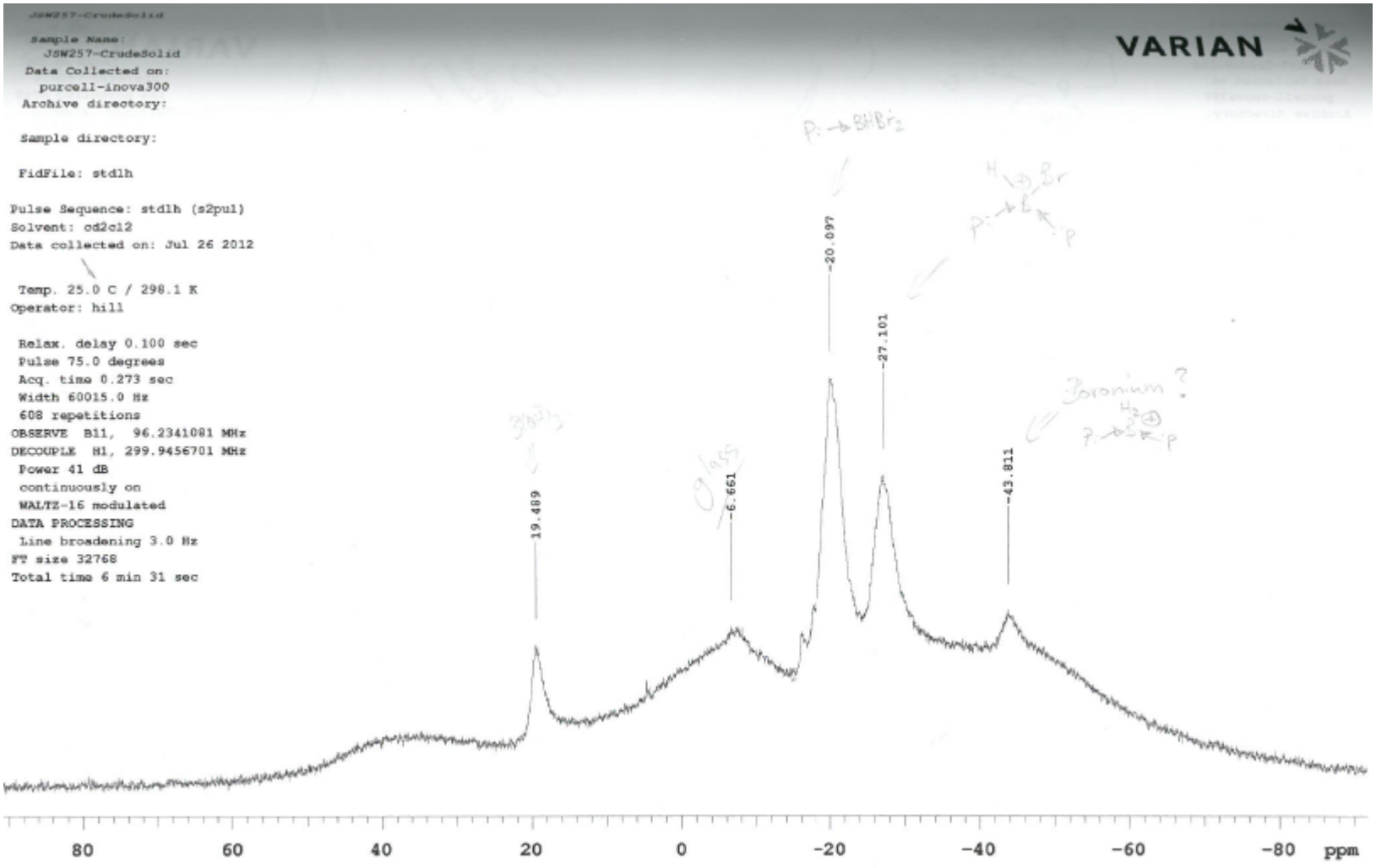
Compound 12 – $^{11}B\{^{1}H\}$ NMR spectrum



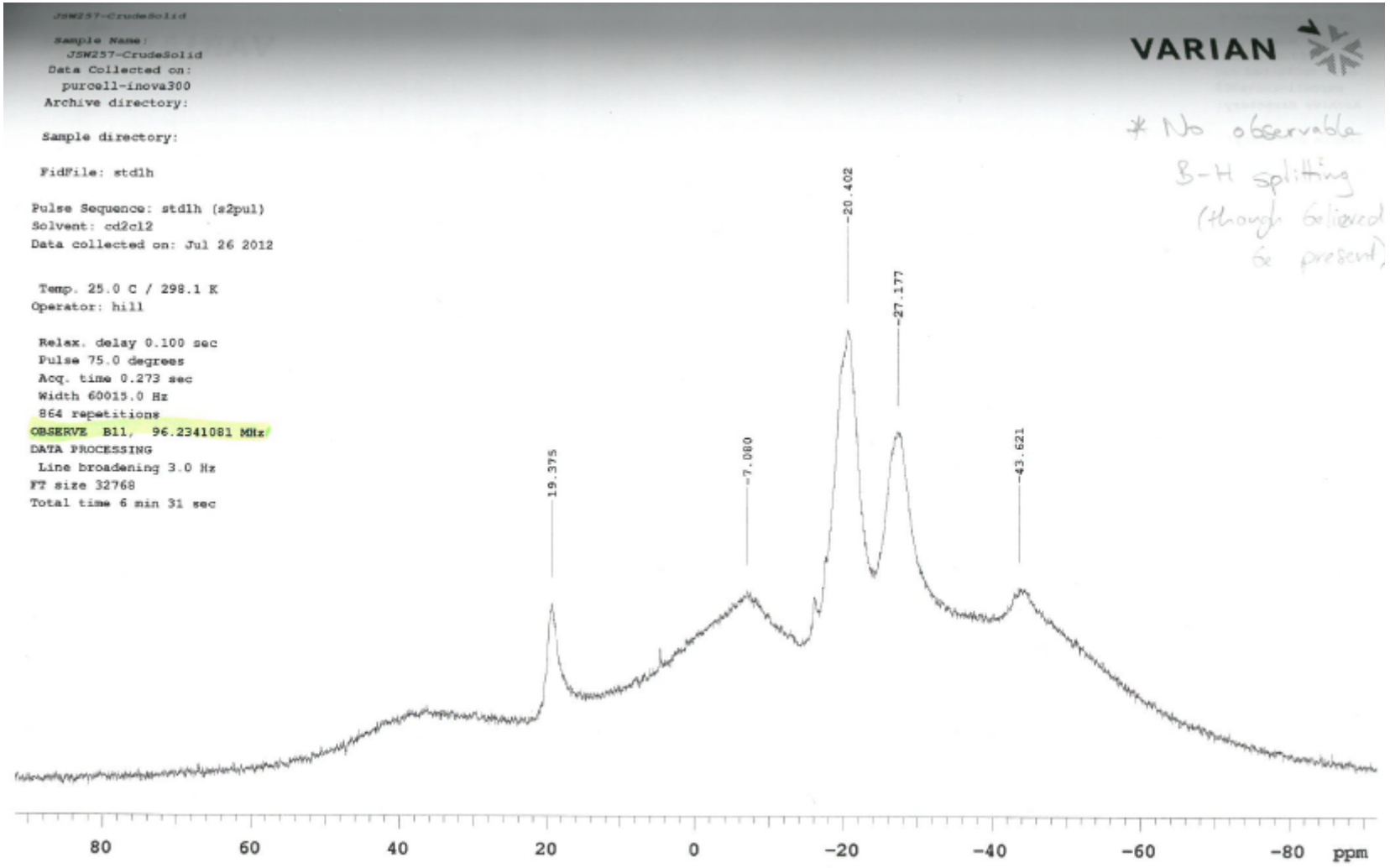
Compound 12 – $^{13}C\{^{1}H\}$ NMR spectrum



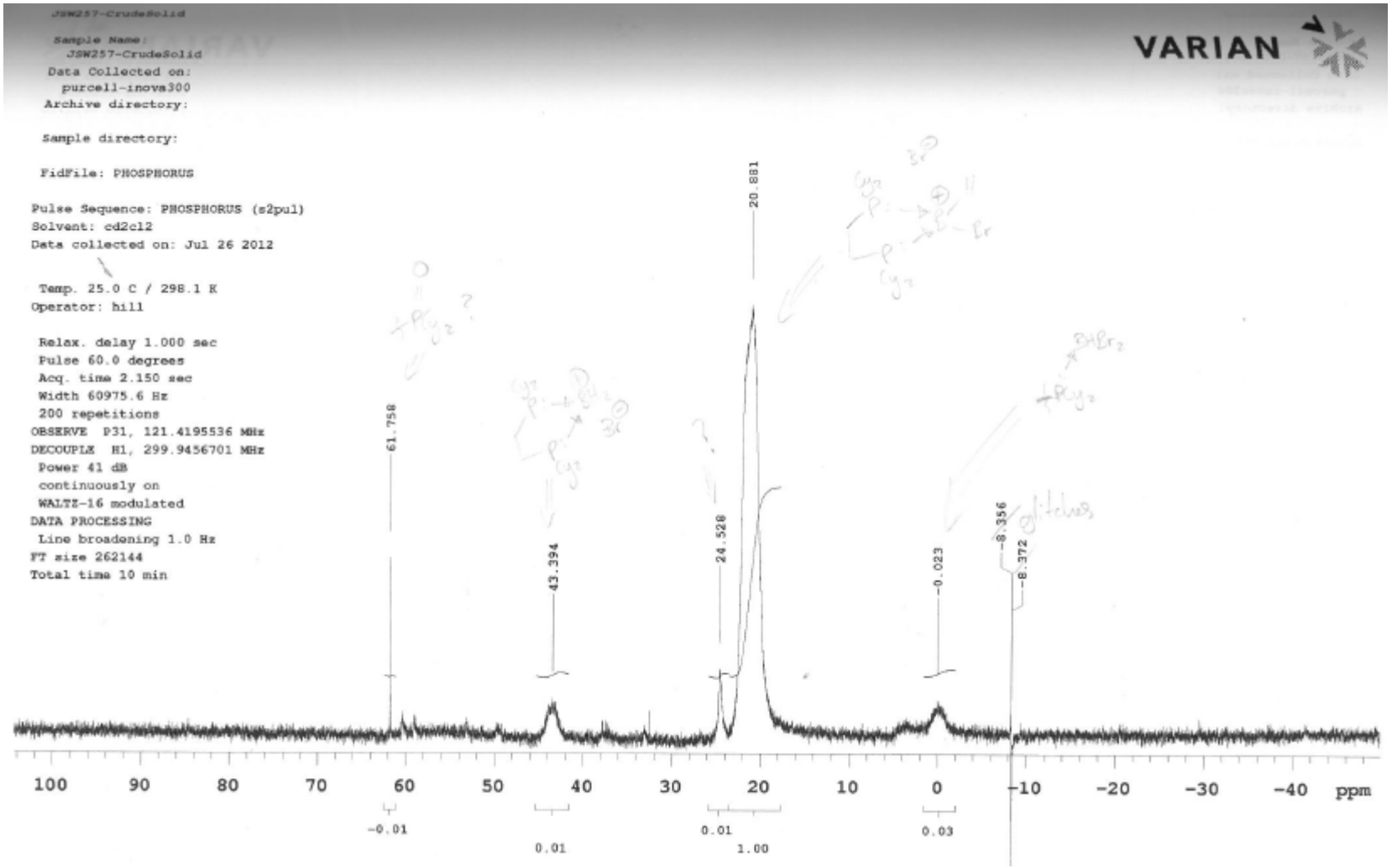
Compound 12 – $^{31}P\{^{1}H\}$ NMR spectrum



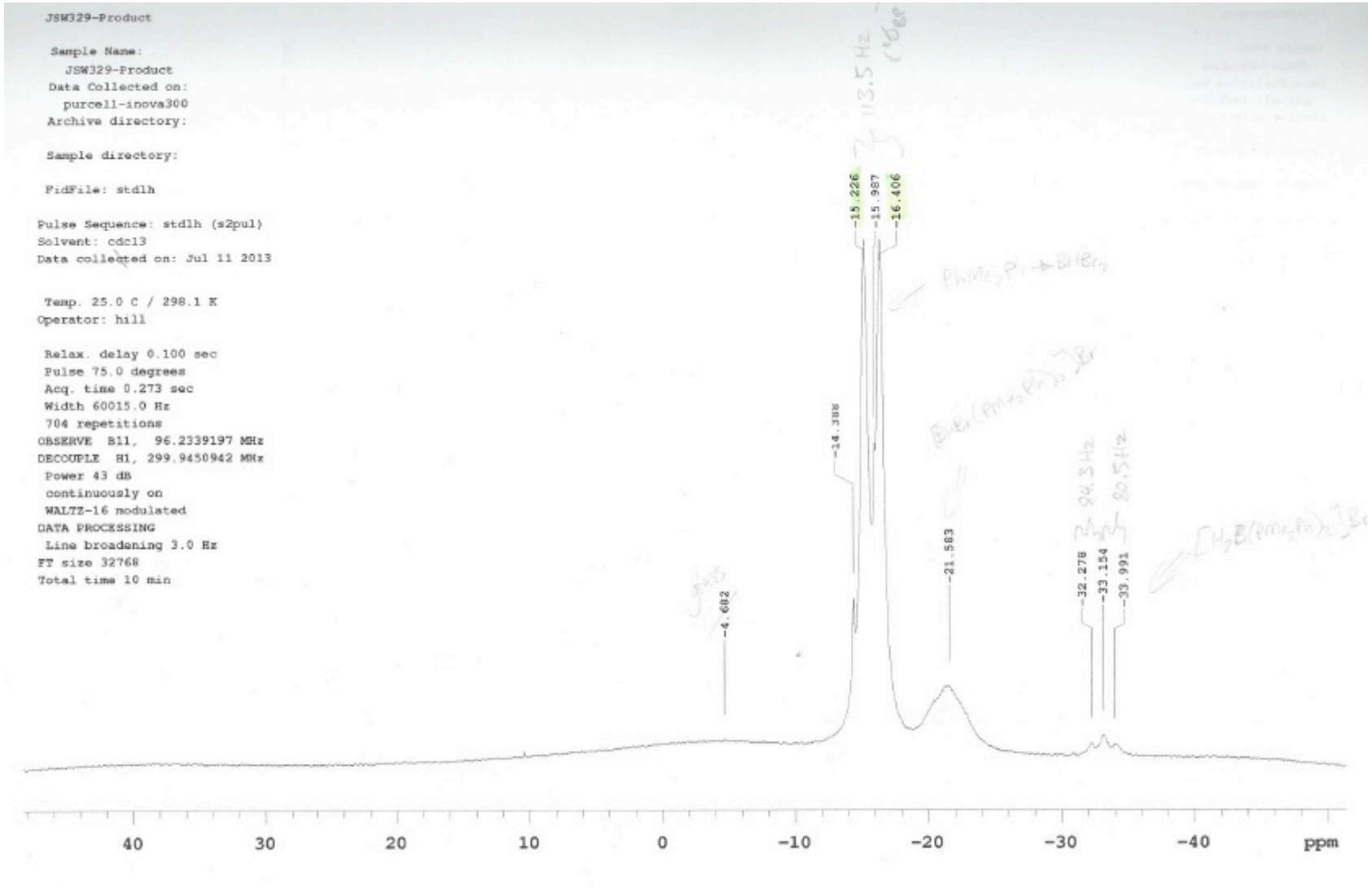
Compound 13 – $^{11}B\{^{1}H\}$ NMR spectrum



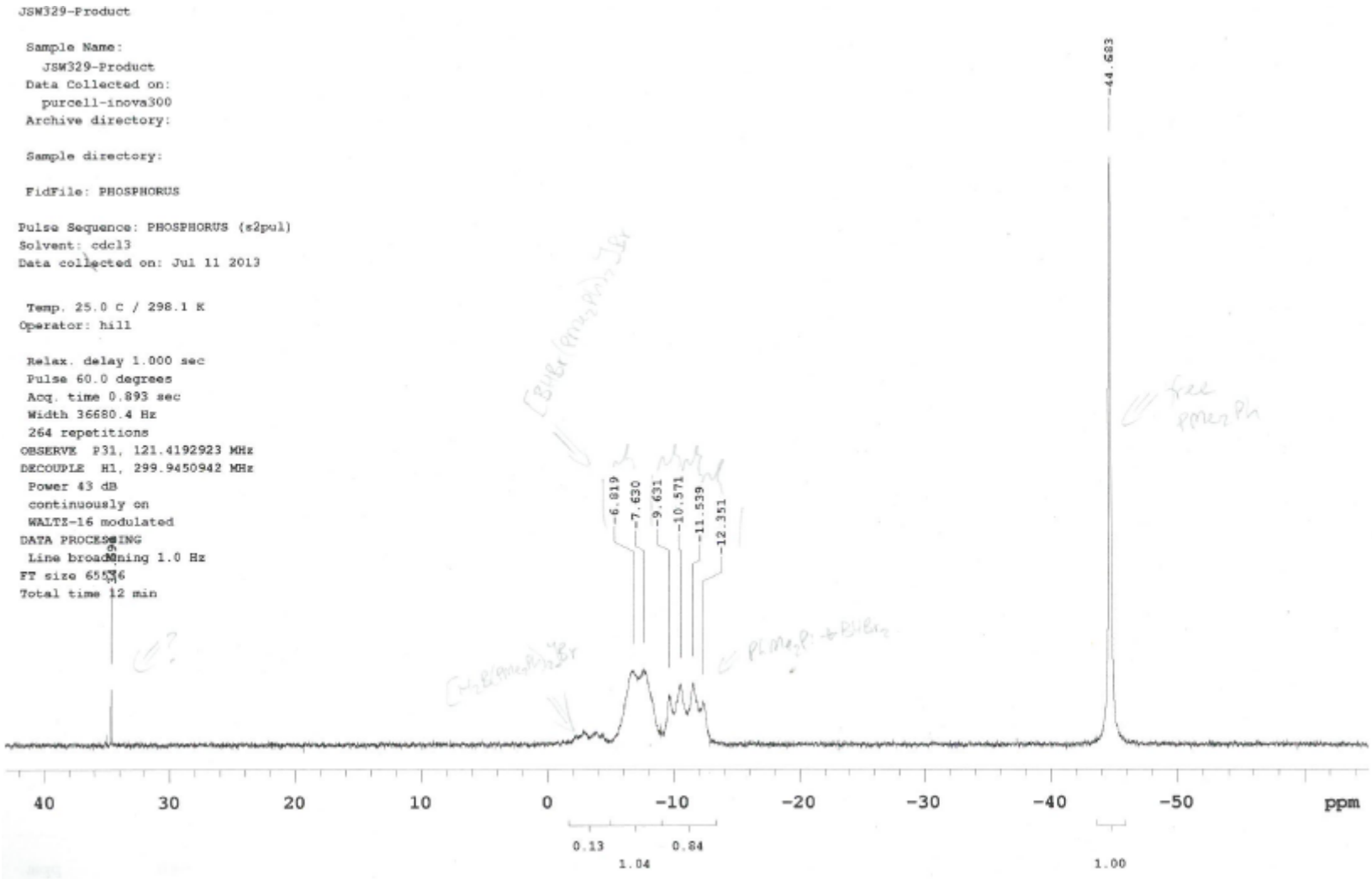
Compound 13 – ^{11}B NMR spectrum



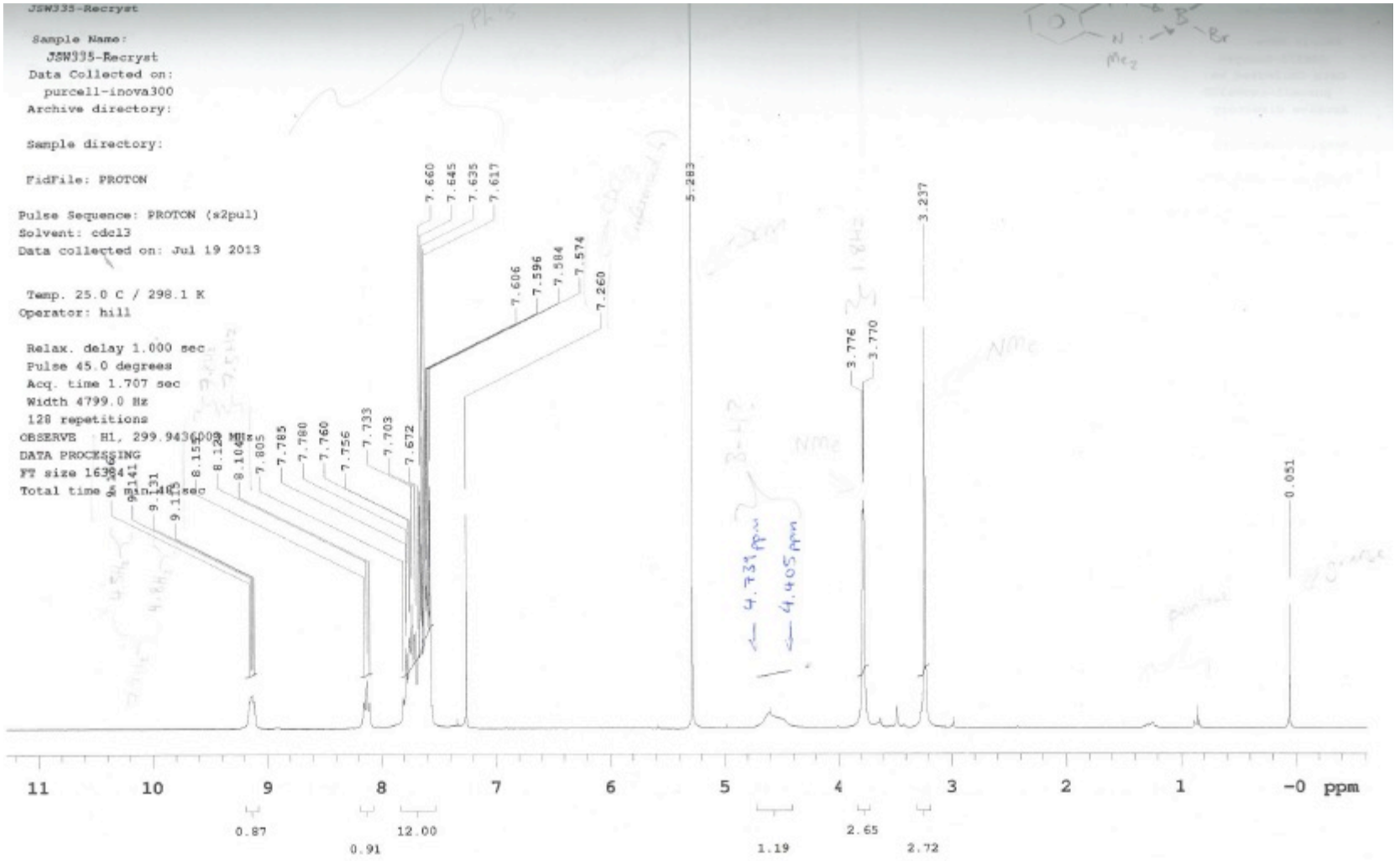
Compound 13 – $^{31}P\{^{1}H\}$ NMR spectrum



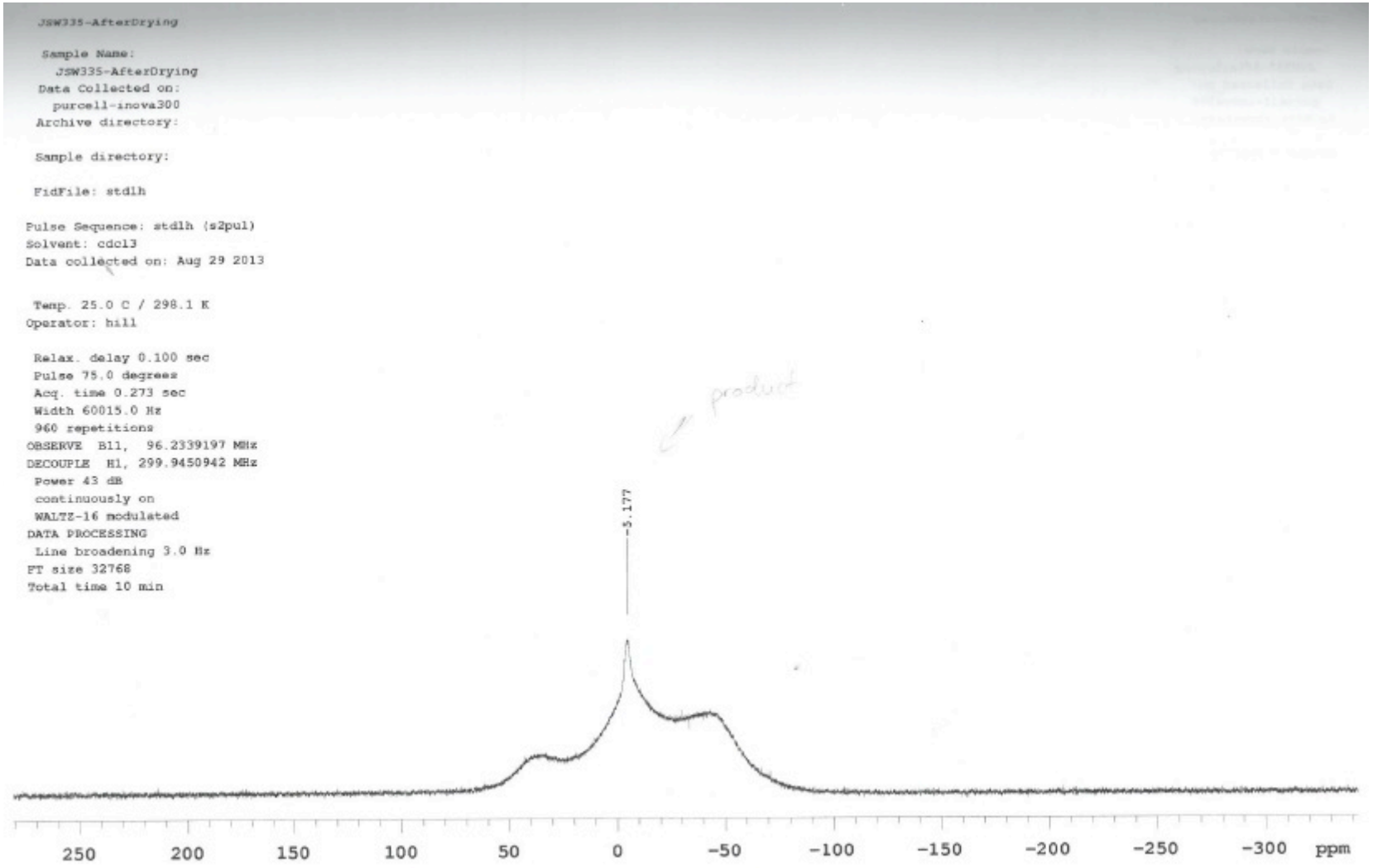
Compound 14 – $^{11}B\{^{1}H\}$ NMR spectrum



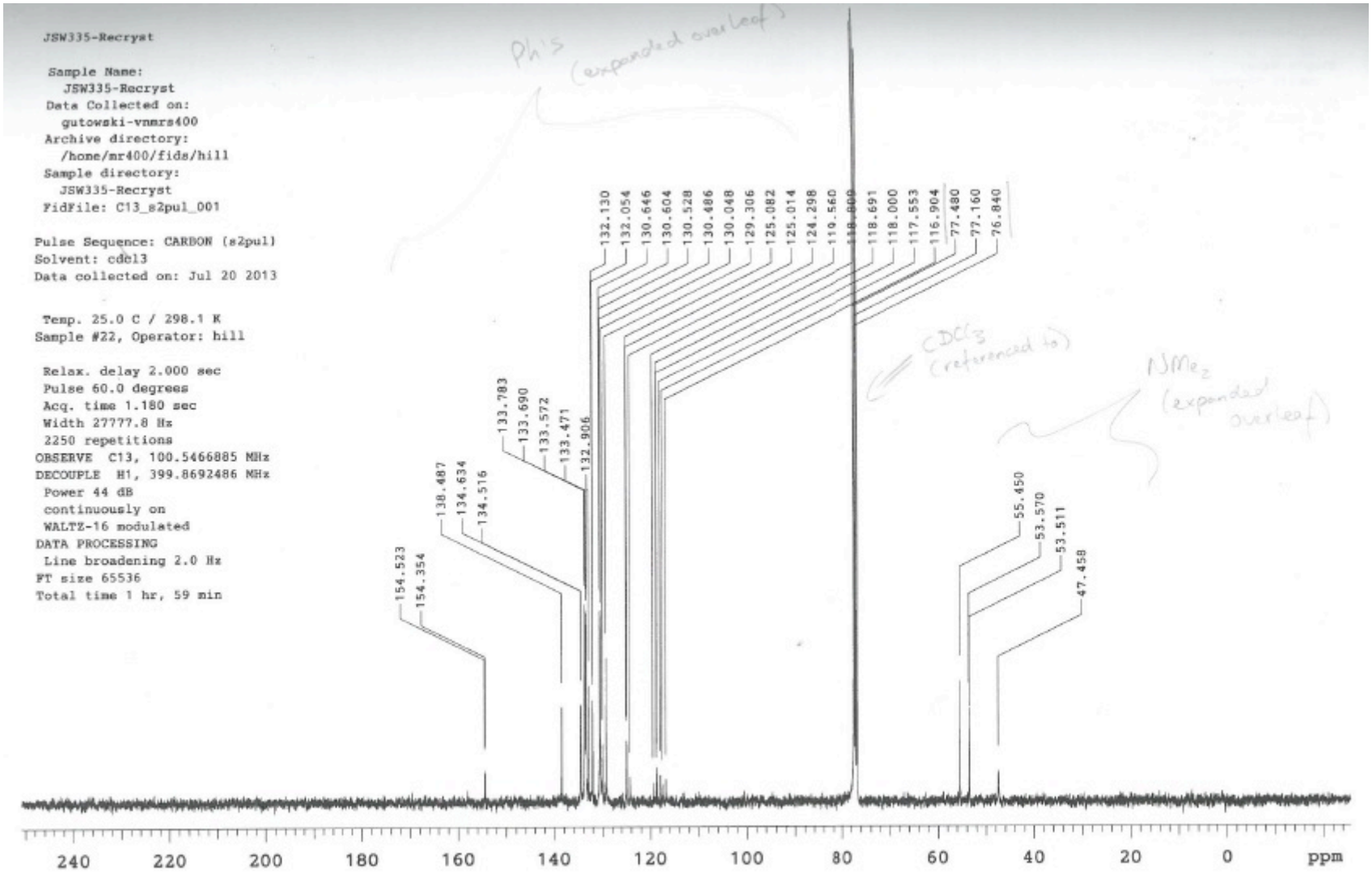
Compound 14 – $^{31}P\{^{1}H\}$ NMR spectrum



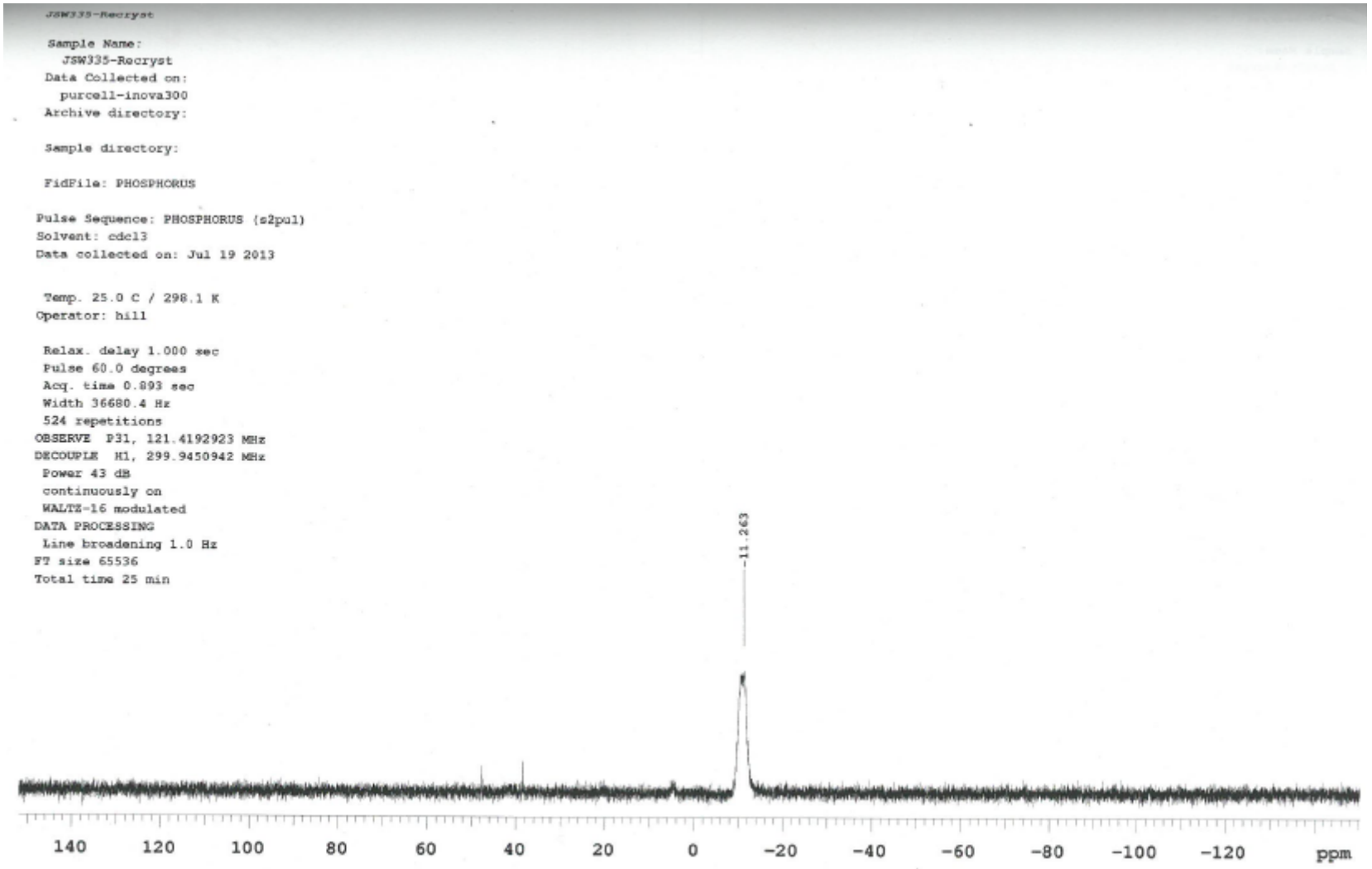
Compound 15 – ^{1}H NMR spectrum



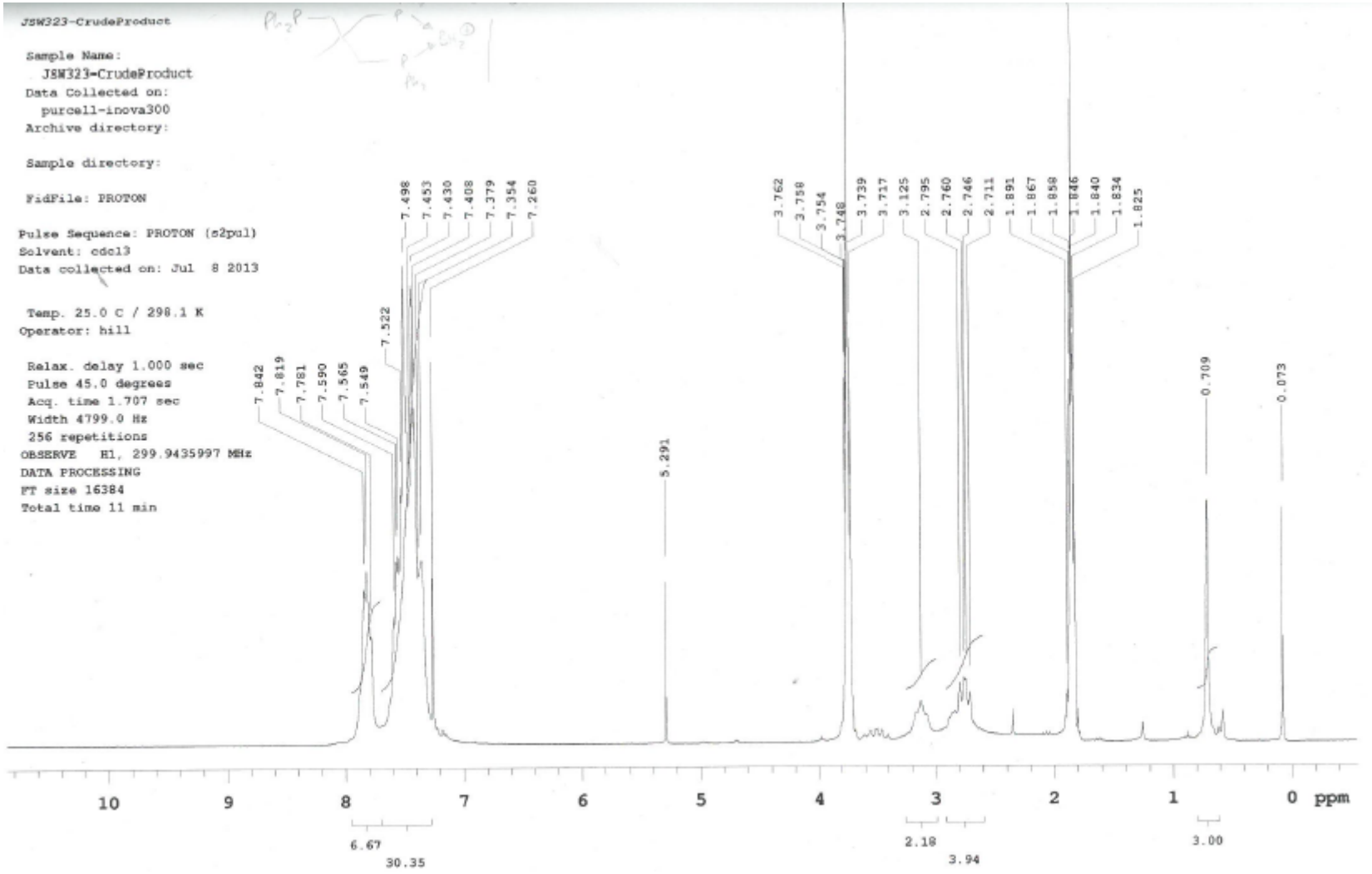
Compound 15 – $^{11}B\{^{1}H\}$ NMR spectrum



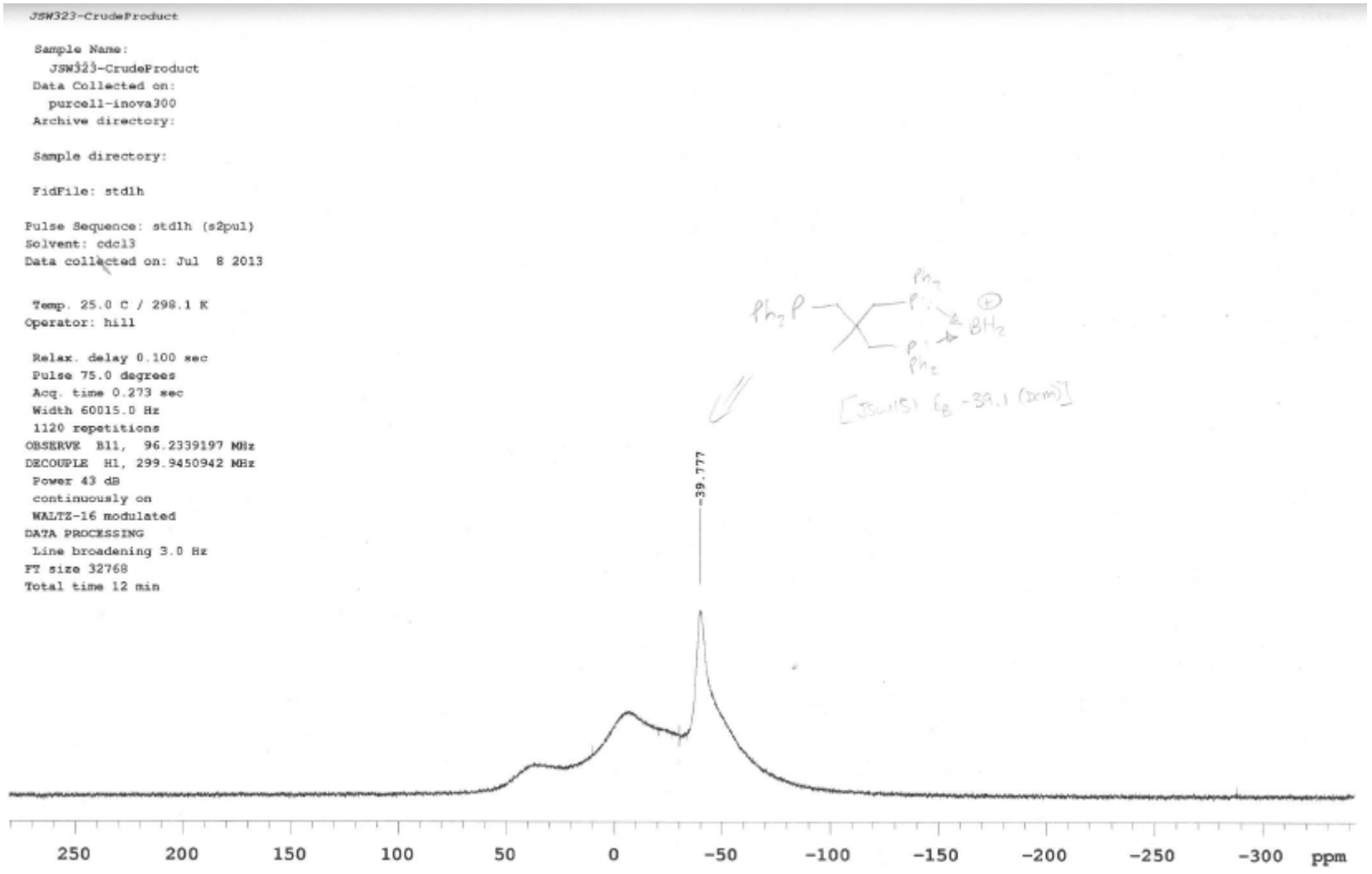
Compound 15 – $^{13}C\{^{1}H\}$ NMR spectrum



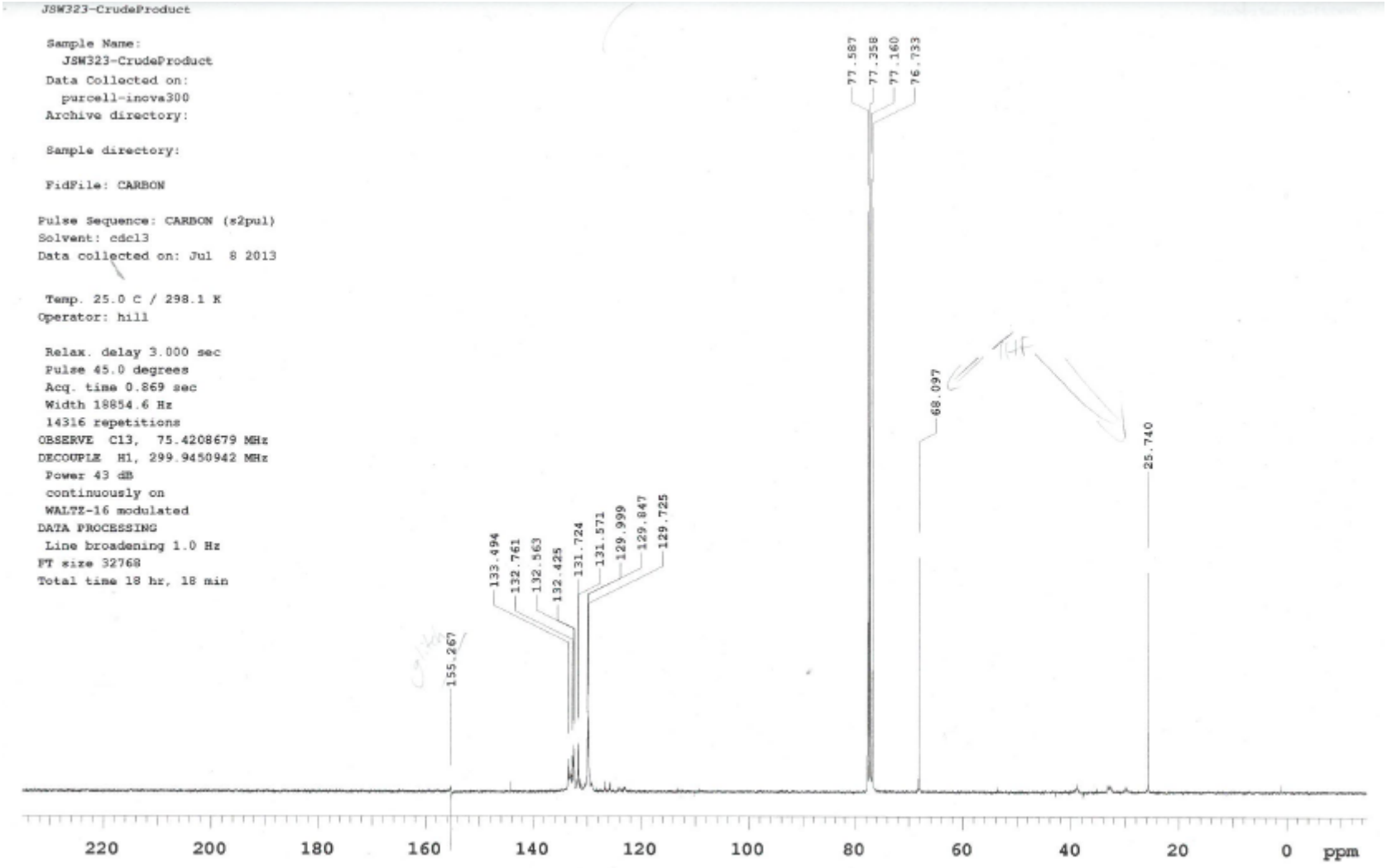
Compound 15 – $^{31}P\{^{1}H\}$ NMR spectrum



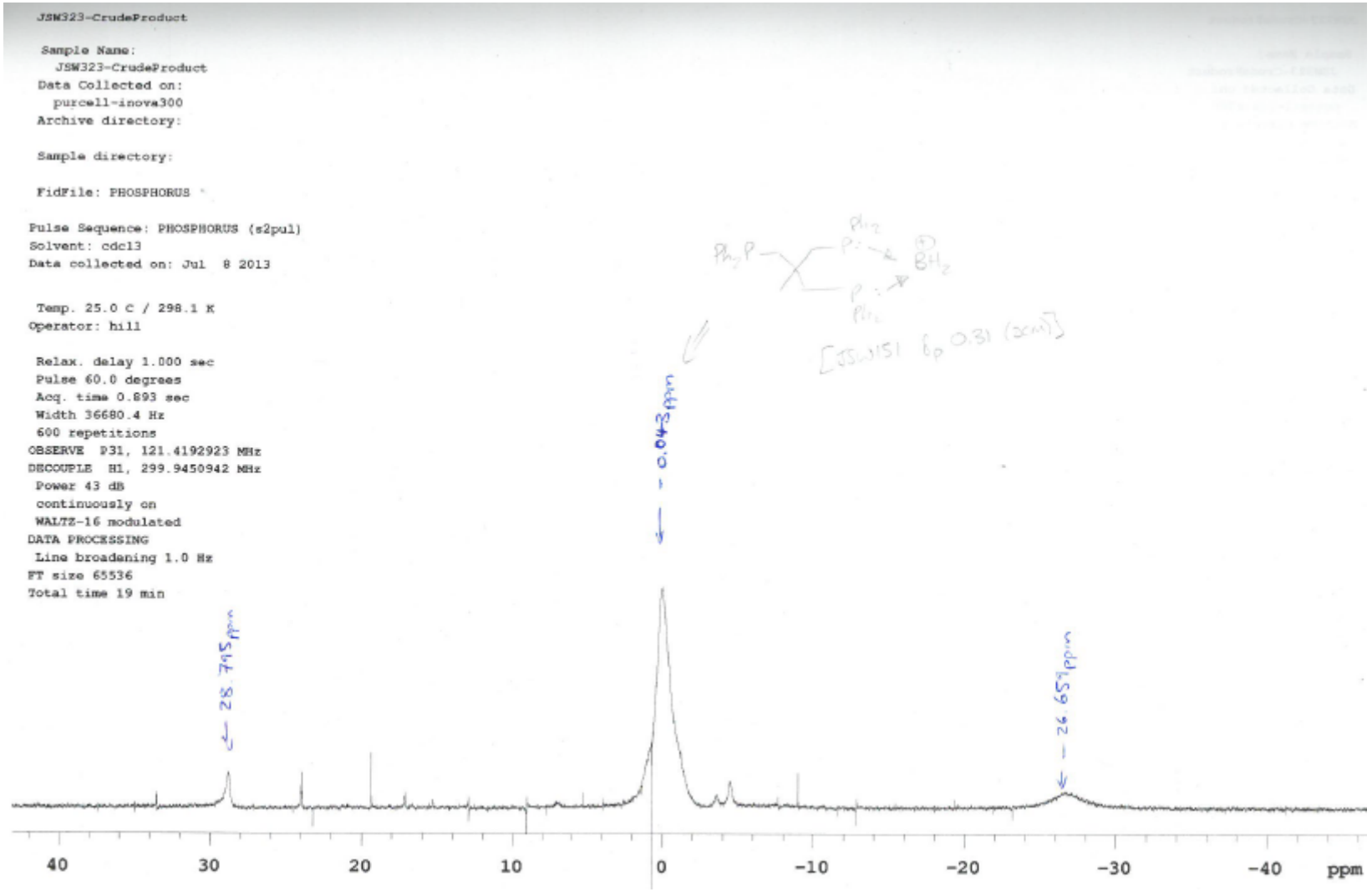
Compound 17 – ^{1}H NMR spectrum



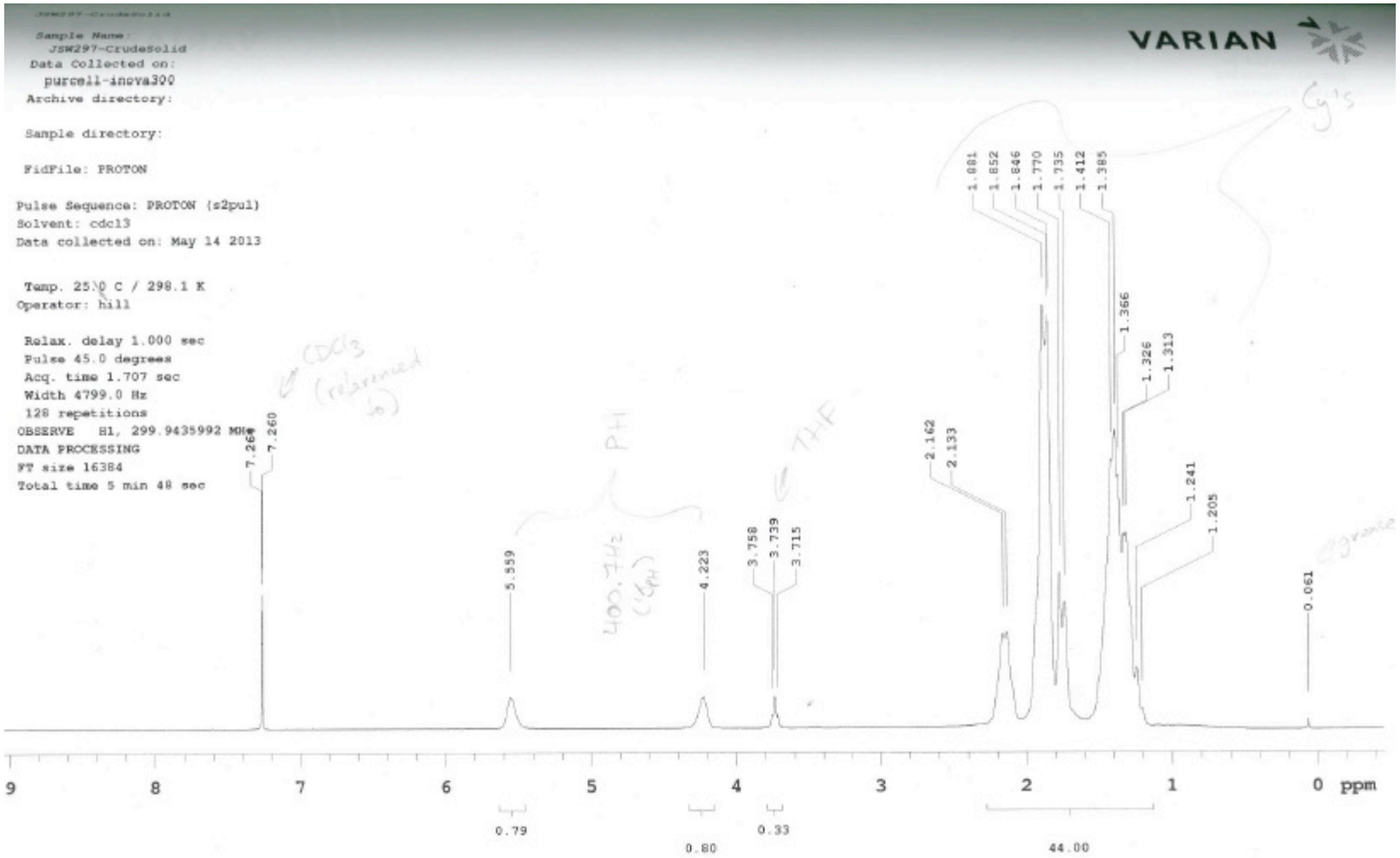
Compound 17 – $^{11}B\{^{1}H\}$ NMR spectrum



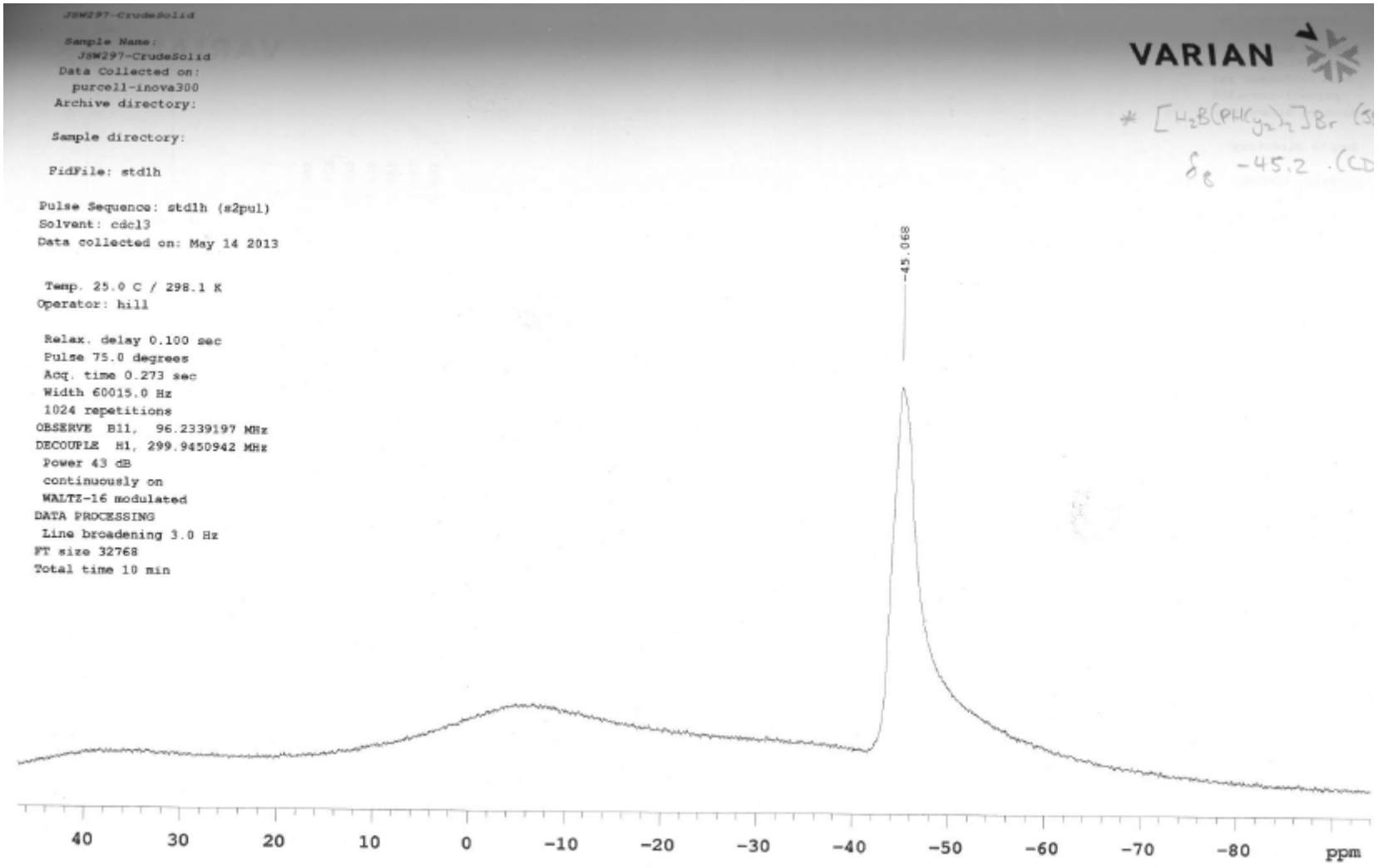
Compound 17 – $^{13}C\{^{1}H\}$ NMR spectrum



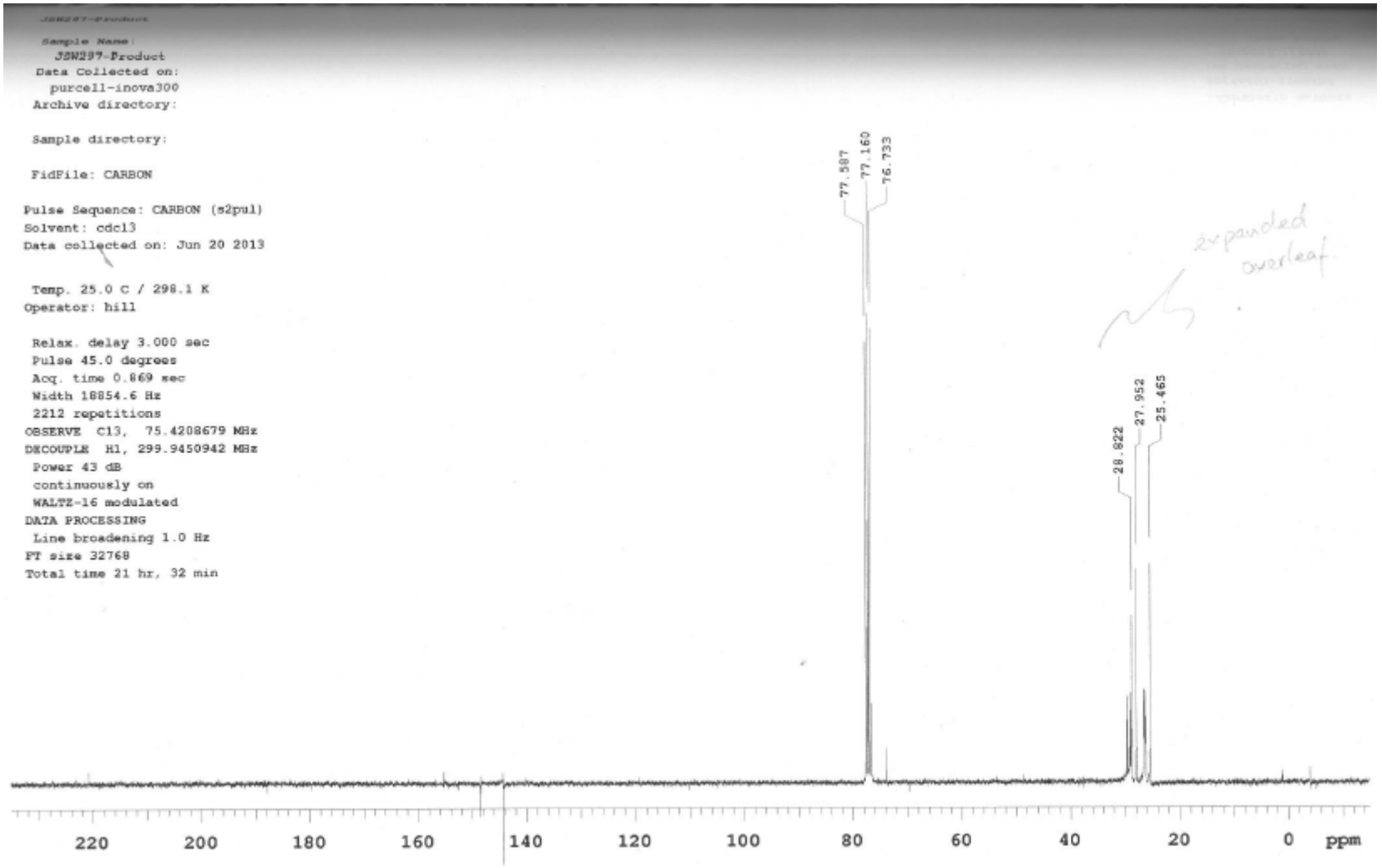
Compound 17 – $^{31}P\{^{1}H\}$ NMR spectrum



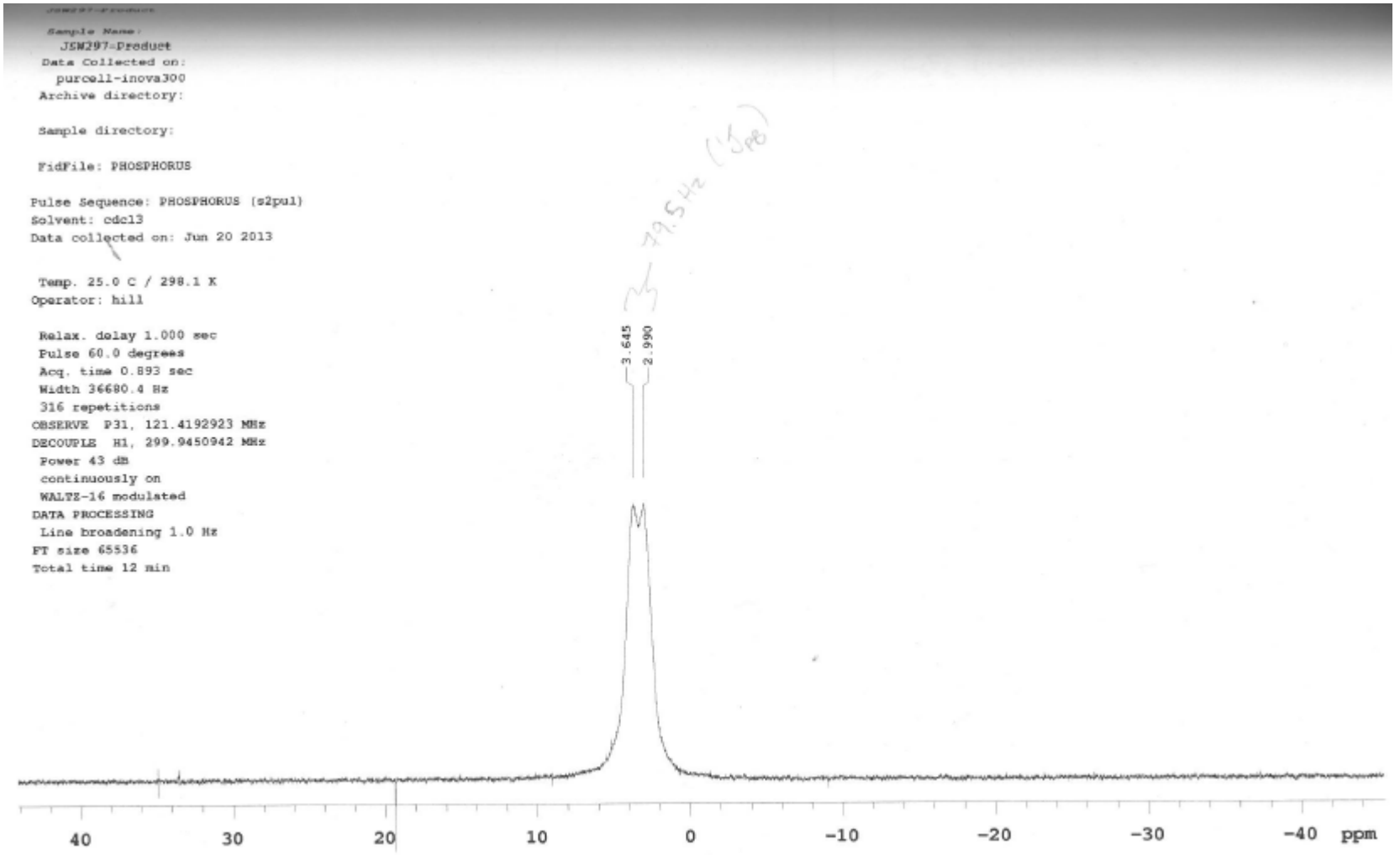
Compound 18 – ^{1}H NMR spectrum



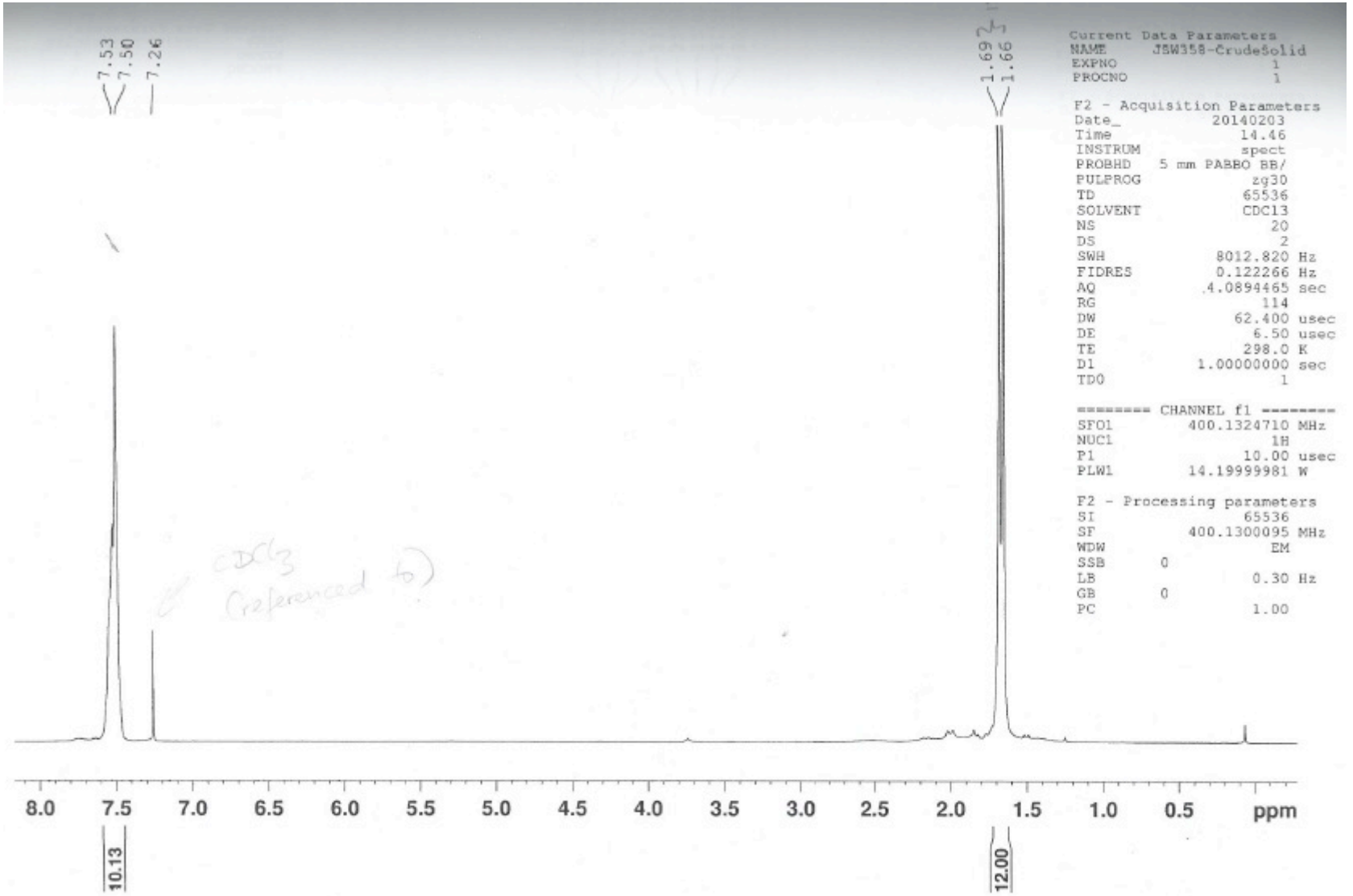
Compound 18 – $^{11}B\{^{1}H\}$ NMR spectrum



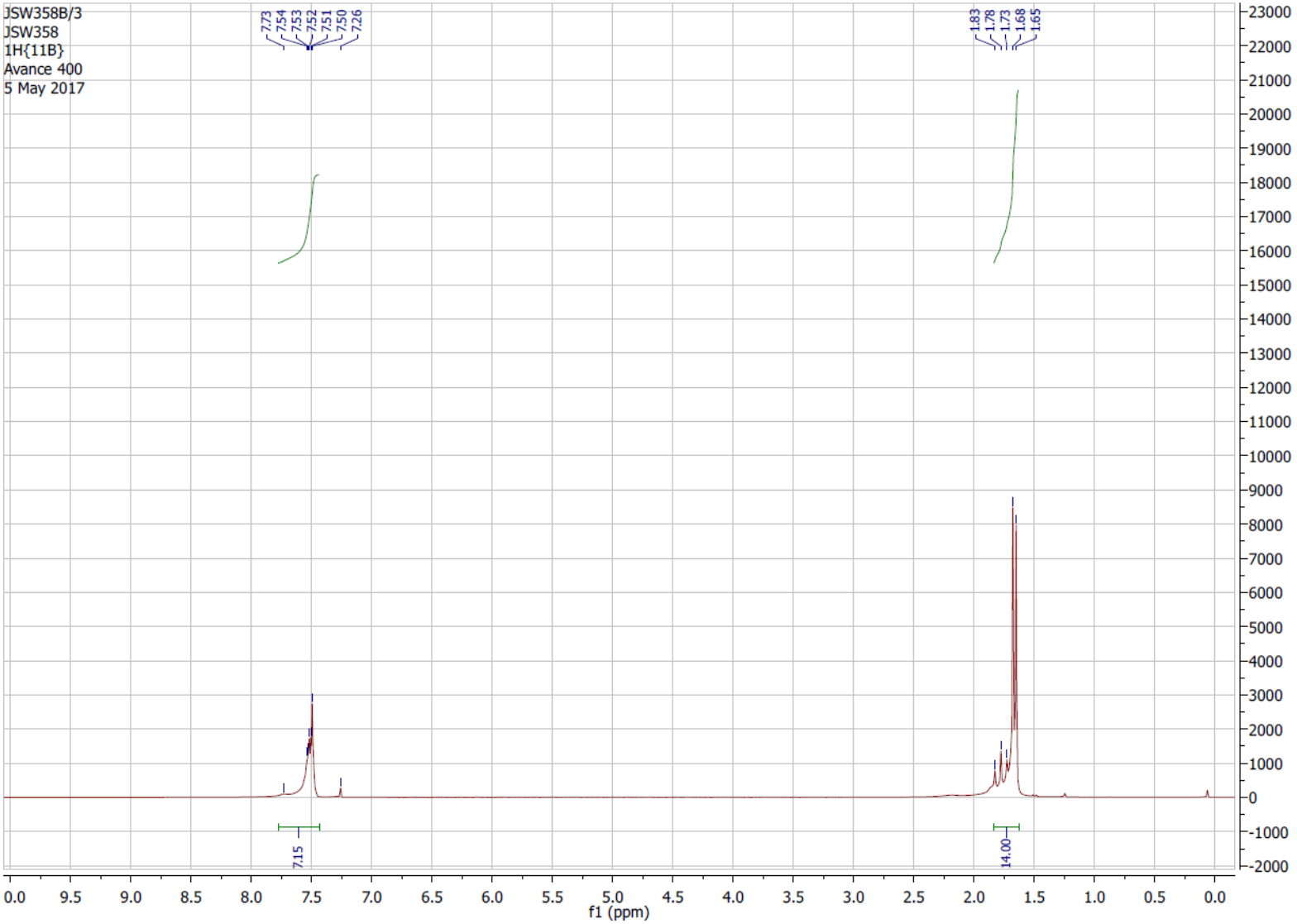
Compound 18 – $^{13}C\{^{1}H\}$ NMR spectrum



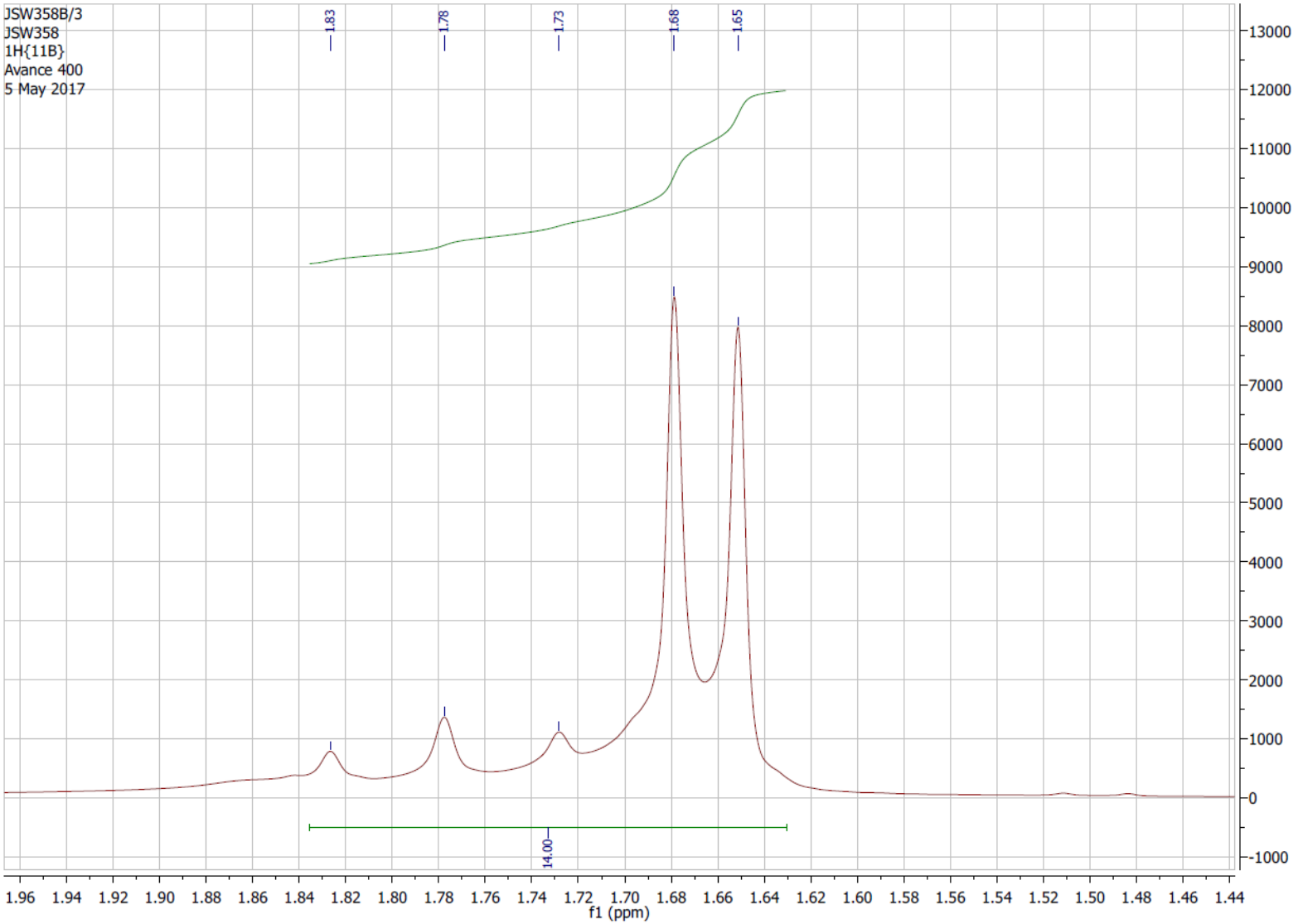
Compound 18 – $^{31}P\{^{1}H\}$ NMR spectrum



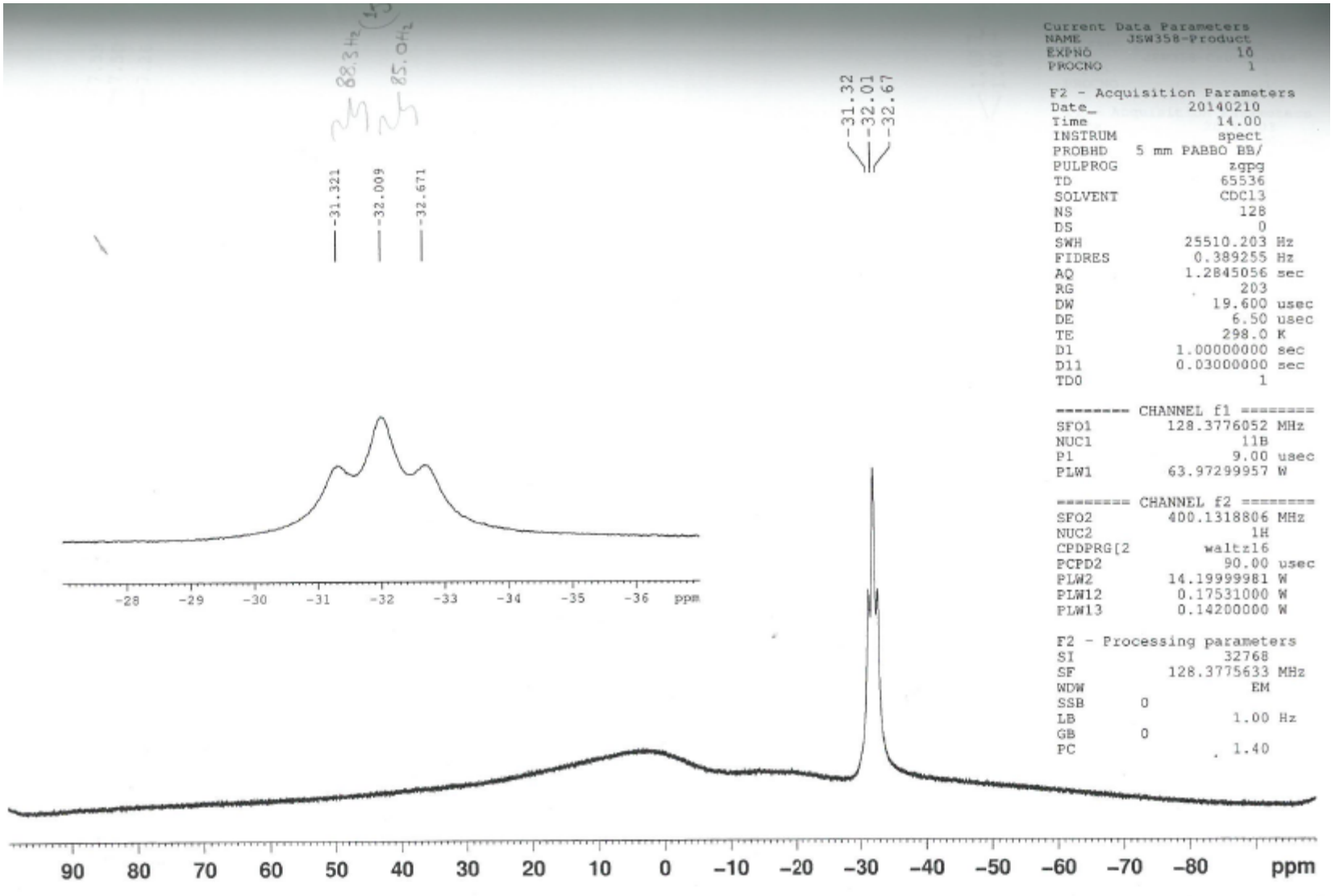
Compound 19 – ^{1}H NMR spectrum



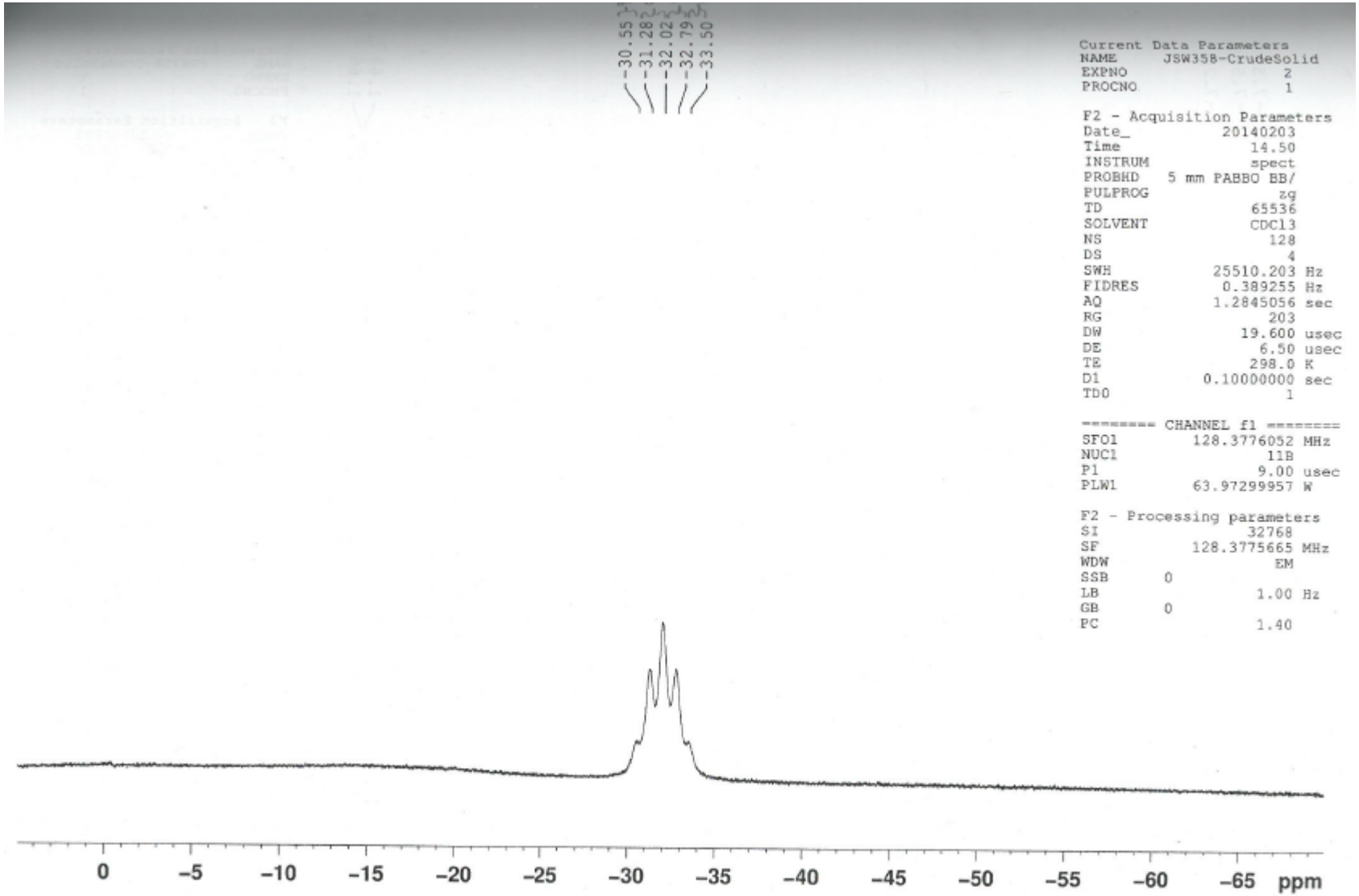
Compound 19 – $^{1}H\{^{11}B\}$ NMR spectrum



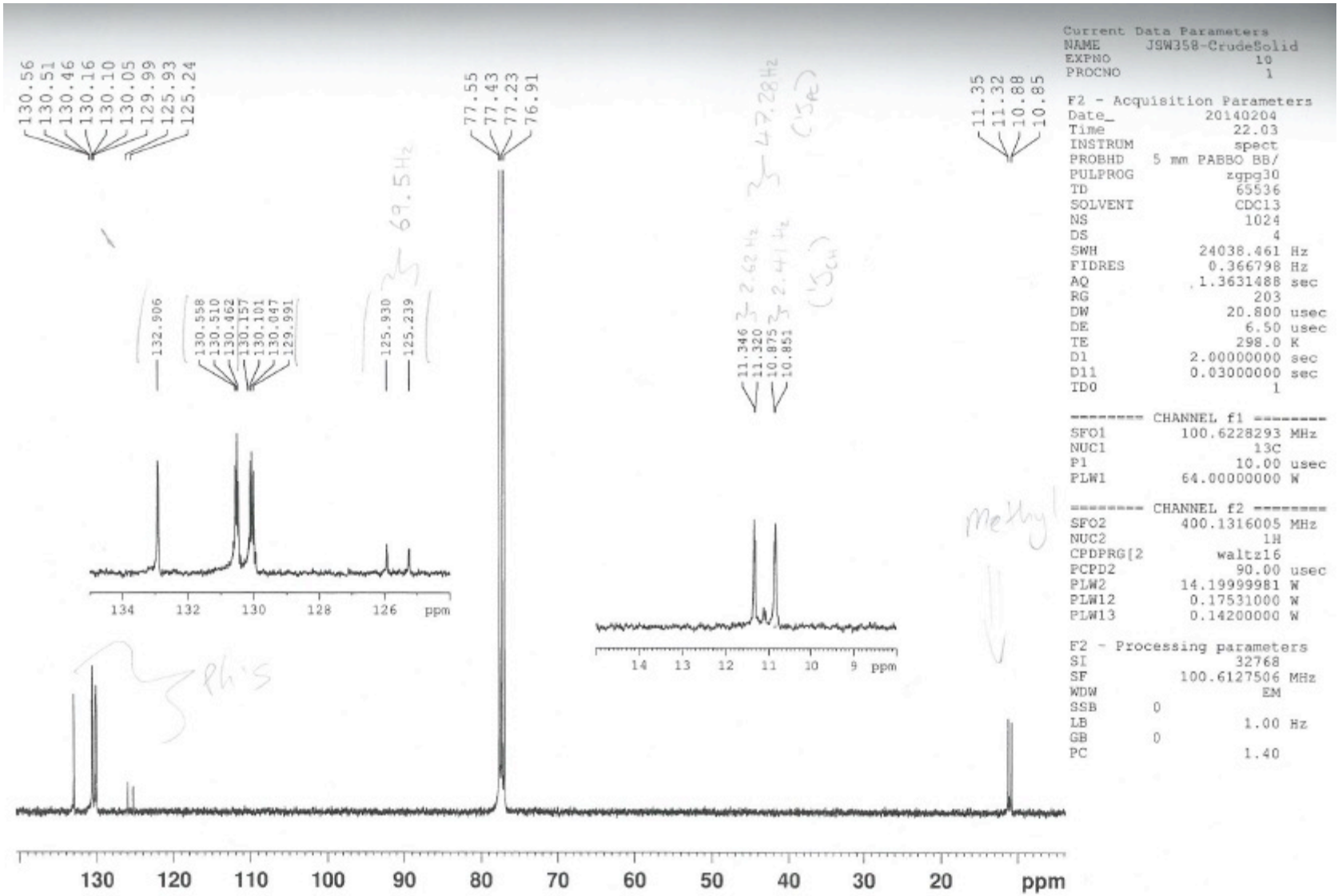
Compound 19 – $^{1}H\{^{11}B\}$ NMR spectrum (Expansion of BH_2 resonance)



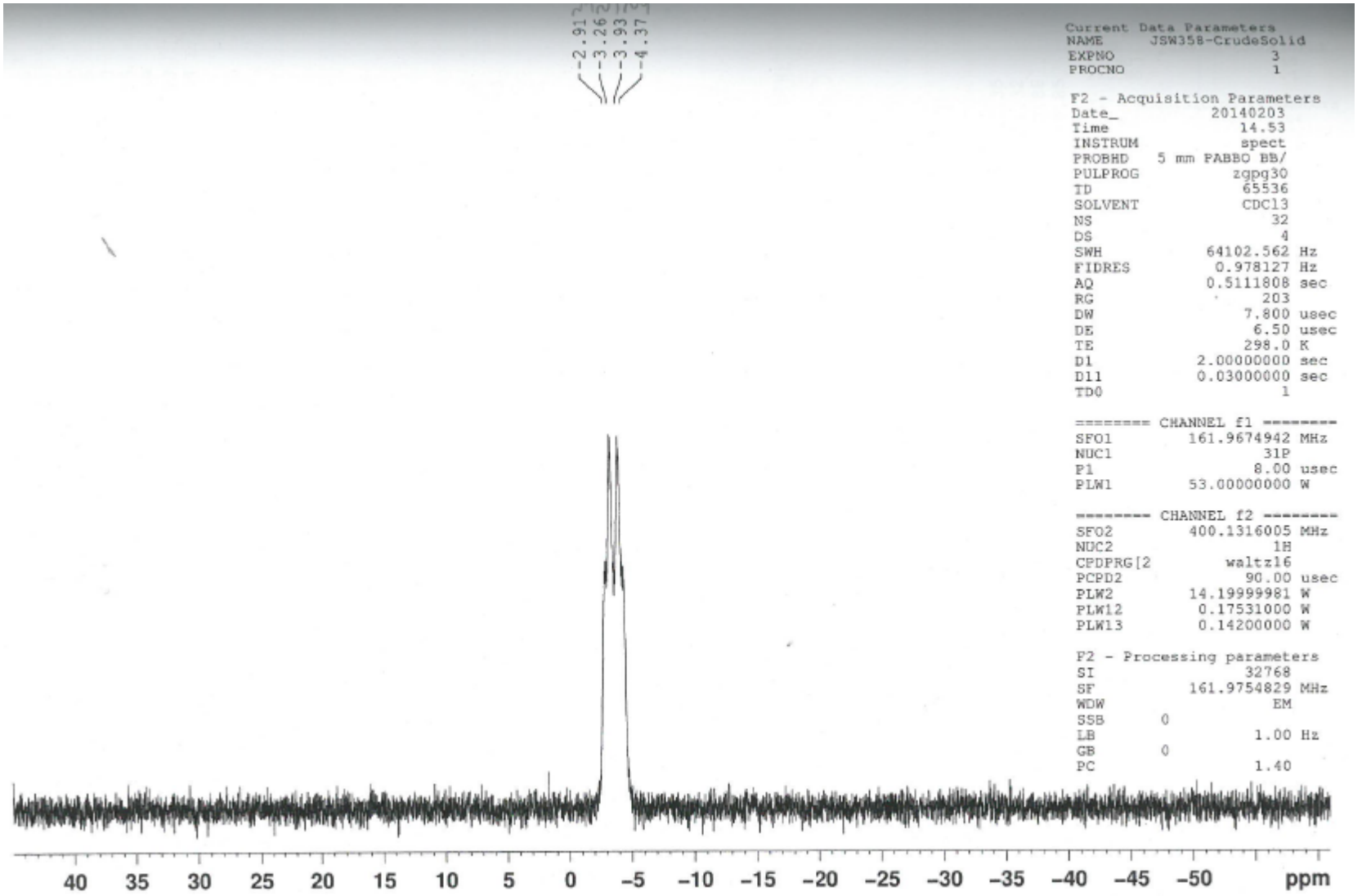
Compound 19 – $^{11}B\{^{1}H\}$ NMR spectrum



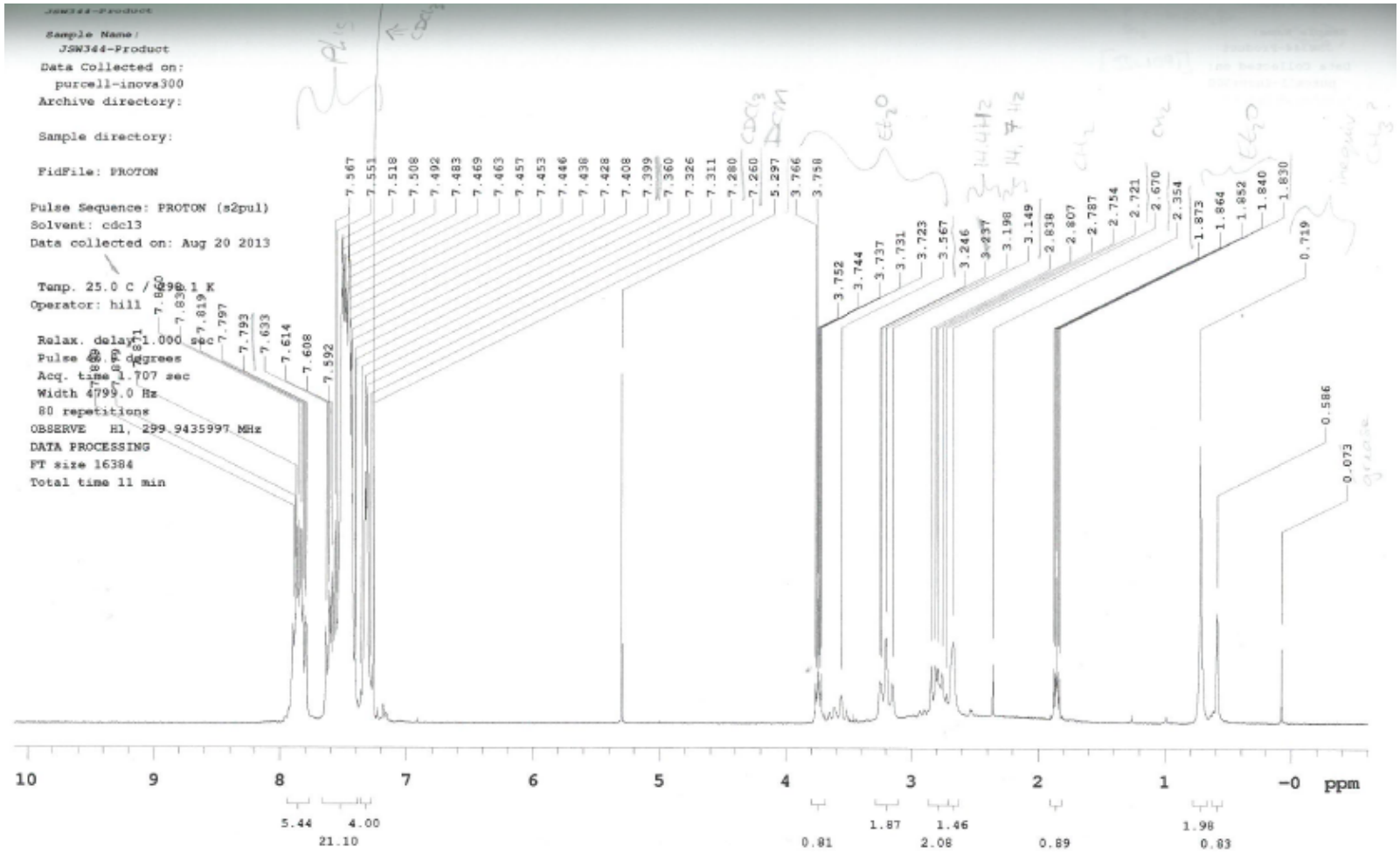
Compound 19 – ^{11}B NMR spectrum



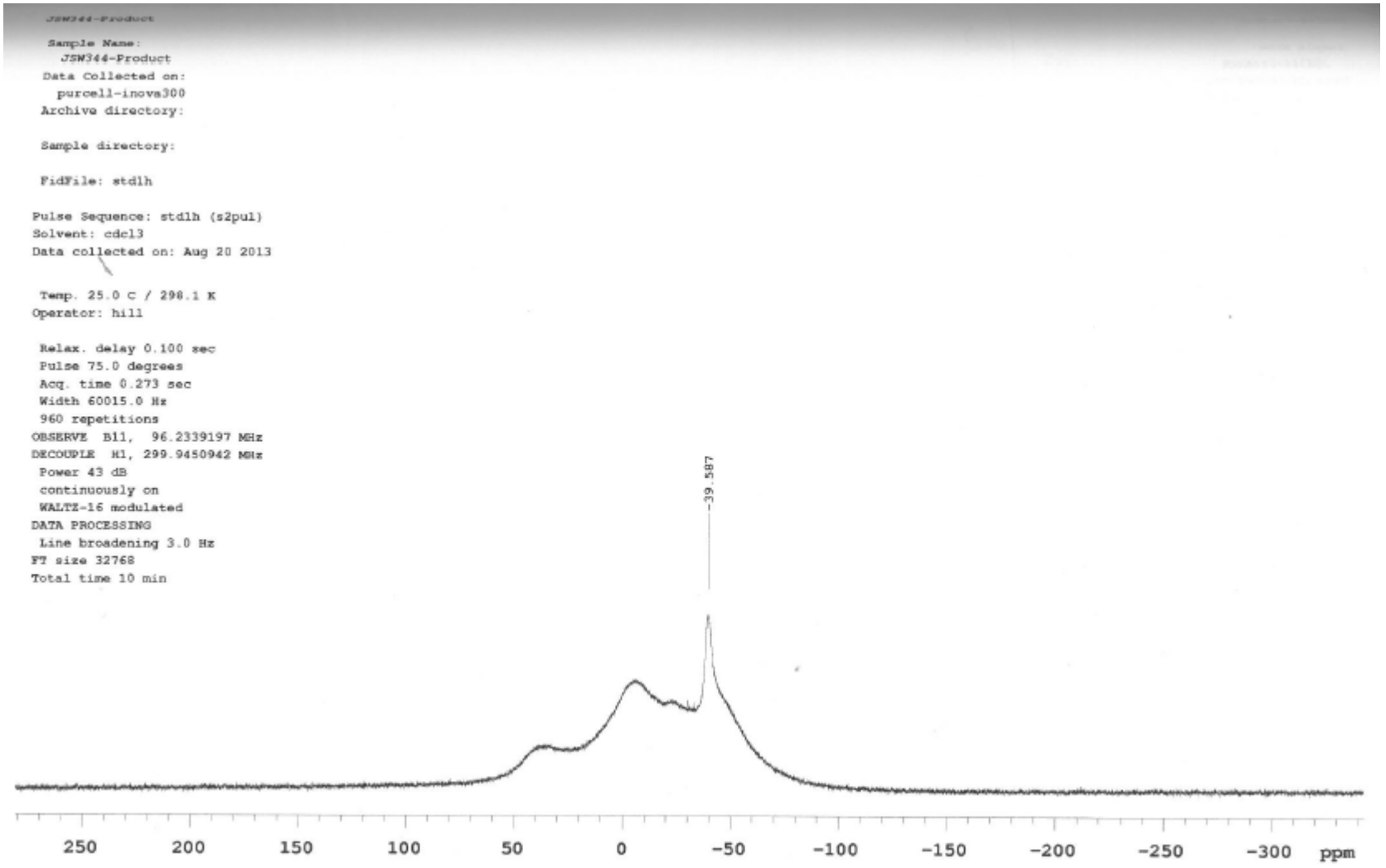
Compound 19 – $^{13}C\{^{1}H\}$ NMR spectrum



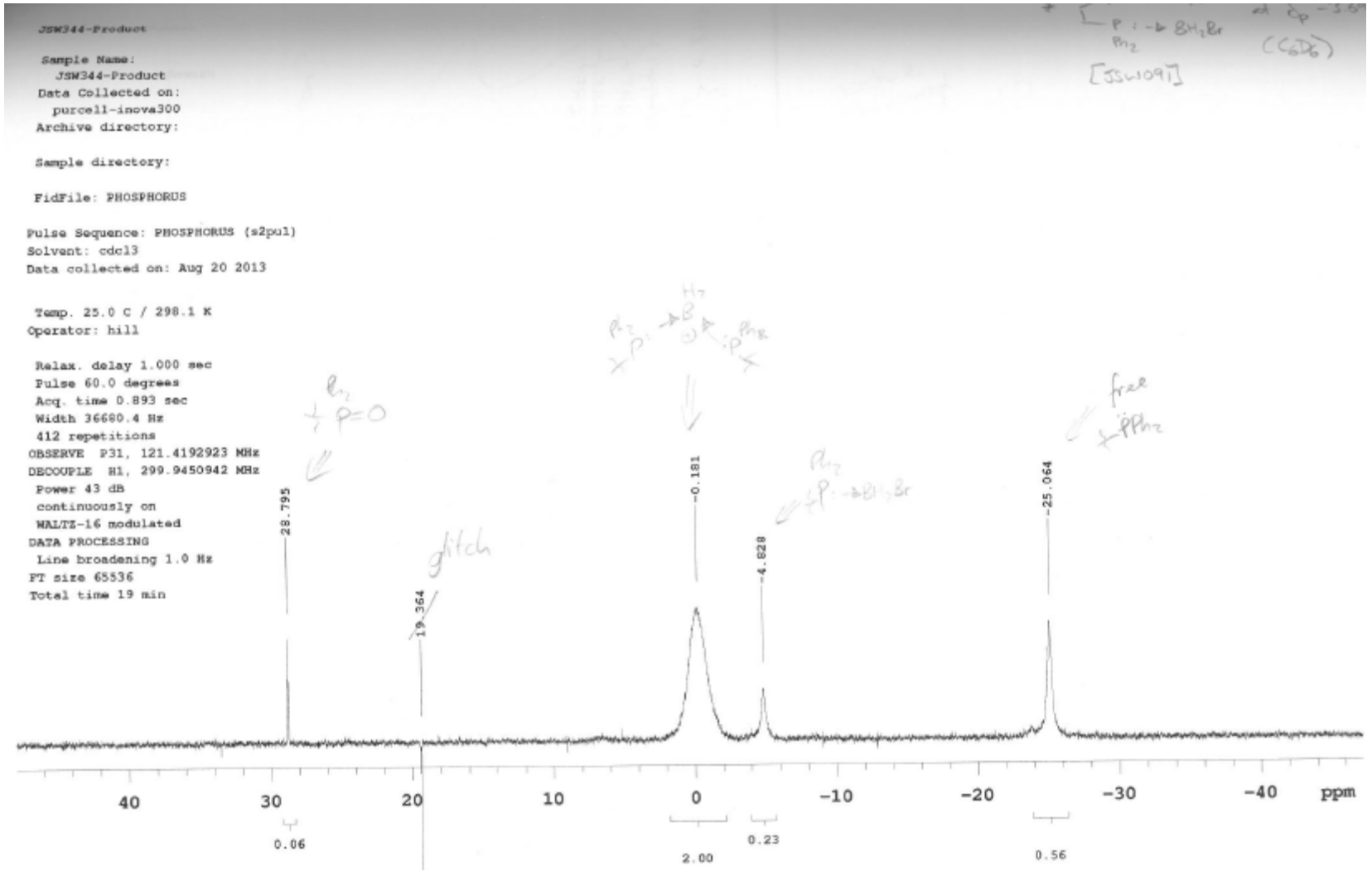
Compound 19 – $^{31}P\{^{1}H\}$ NMR spectrum



Compound 20 – ^{1}H NMR spectrum



Compound 20 – $^{11}B\{^{1}H\}$ NMR spectrum



Compound 20 – $^{31}P\{^{1}H\}$ NMR spectrum