

Appendix A

XRF analysis:

Ministry of Industry,
Mine and Trade




GEOLOGICAL SURVEY OF IRAN

Date:

No:

Ref:

In The Name Of GOD
Mineralogy laboratories group
XRF (Magix Pro)

Requested by : M.R.Sazegar

Number of Samples : 3

Report Date : 5/4/2017

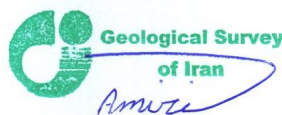
Report No. : 96-84

Semi Quantitative Analysis

Lab. No.	1	2
Field No.	Fe-MSN	H/Fe-MSN
Formula	(%)	(%)
SiO ₂	93.94	92.96
Al ₂ O ₃	0.16	0.22
Fe ₂ O ₃	3.18	3.25
CaO	0.11	0.15
Na ₂ O	0.12	0.16
MgO	0.01	0.02
K ₂ O	n.d*	n.d*
TiO ₂	0.01	0.02
MnO	0.02	0.03
P ₂ O ₅	0.01	0.02
Cl	0.02	0.03
L.O.I.	2.37	3.08

Analysis by : Dalvand

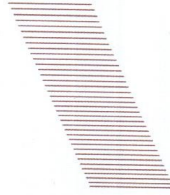
* n.d = Not detected



Appendix B

ICP analysis:

Ministry of Industry,
Mine and Trade



GEOLOGICAL SURVEY OF IRAN

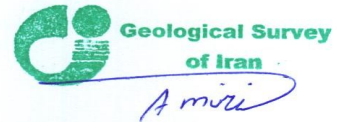
Date:
No:
Ref:

Laboratory group Analytical chemistry ICP Varian

Date: 5/4/2017
NO. : 96-84

Applicant: M.R.Sazegar
NO. of Sample: 2

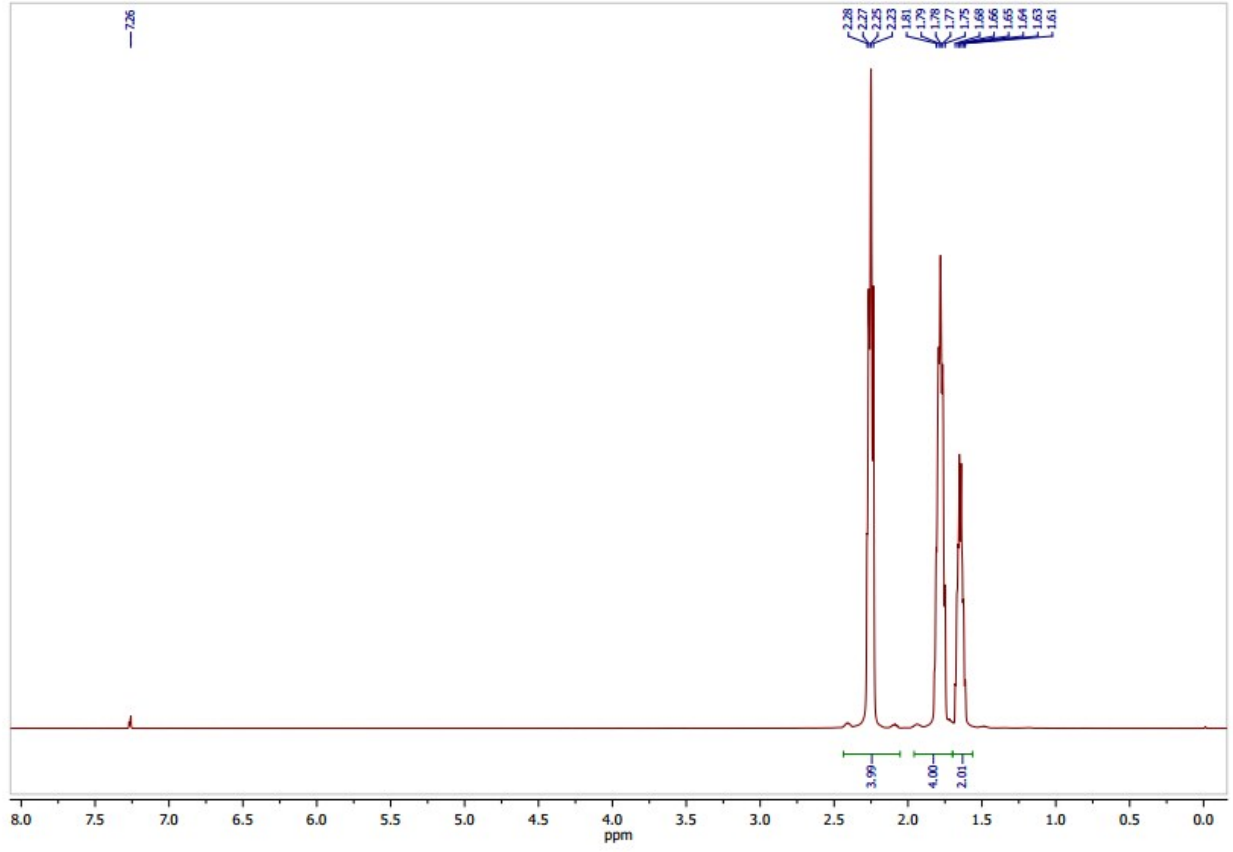
Lab. No.	1	2
Field No.	Fe-MSN	H/Fe-MSN
Element	ppm	ppm
Ag	< 1	< 1
As	19.0	20.0
B	< 1	< 1
Ba	< 1	< 1
Be	2.0	2.0
Cd	< 1	< 1
Ce	< 1	< 1
Co	83.0	85.0
Cr	< 1	< 1
Cs	2.0	3.0
Cu	9.0	10.0
Ge	< 1	< 1
Hg	< 1	< 1
La	< 1	< 1
Li	4.0	5.0
Mn	150.0	226.0
Mo	30.0	32.0
Nb	< 1	< 1
Ni	3.0	4.0
P	43.0	86.0
Pb	190.0	193.0
Rb	19.0	19.0
S	< 1	< 1
Sb	6.0	7.0
Sc	< 1	< 1
Se	< 1	< 1
Sn	2.0	2.0
Sr	36.0	38.0
Te	< 1	< 1
Ti	57.0	118.0
V	16.0	16.0
Y	20.0	21.0
Yb	8.0	9.0
Zn	324.0	327.0
Zr	17.0	17.0
Cl	230.0	289.0



Operator: A.Solgi

Appendix C

^1H NMR spectroscopy:



Appendix D

^{13}C NMR spectroscopy:

